

**ZAMBIA TRADE AND INVESTMENT ENHANCEMENT  
PROJECT (ZAMTIE)**

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**TRADE AND INVESTMENT OPPORTUNITIES IN  
AGRICULTURE**

Prepared

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## **CURRENCY EQUIVALENTS**

### **Local currency = Zambian Kwacha (ZMK)**

USD 1.00 = ZMK 3 700

ZMK 1 000 = USD 0.27

### **South Africa Rand (ZAR)**

USD 1.00 = ZAR 8.50

ZAR 1.00 = ZMK 435

ZMK 1 000 = ZAR 2.30

### **Great Britain Pound (GBP)**

GBP 1.00 = USD 1.45

GBP 1.00 = ZMK 5 365

ZMK 1 000 = GBP 0.19

### **Zimbabwe Dollar (ZWD)**

USD 1.00 = ZWD 55.00 (official); ZWD 425.00 (parallel)

ZMK 1 000 = ZWD 14.86 (official); ZWD 114.86 (parallel)

## **WEIGHTS AND MEASURES**

1 hectare (ha) = 2.417 acres

1 lima = 0.25 hectares = 0.604 acres

1 kilogram (kg) = 2.204 pounds

1 kilometer (km) = 0.62 miles

## ACRONYMS AND ABBREVIATIONS

ACE	Agricultural Commodity Exchange
ACF	Agriculture Consultative Forum
AGOA	African Growth and Opportunity Act
APC	African Plantations Corporation, Ltd.
ASIP	Agriculture Sector Investment Program
BOZ	Bank of Zambia
CLUSA	Cooperative League of the USA
COMESA	Common Market for East and Southern Africa
DFID	Department for International Development (United Kingdom)
DRC	Democratic Republic of Congo
EBZ	Export Board of Zambia
EEOA	Economic Expansion in Outlying Areas
EIB	European Investment Bank
EU	European Union
FTA	Free Trade Agreement (COMESA)
GRZ	Government of the Republic of Zambia
HIPC	Highly Indebted Poor Country Initiative
HPC	Horticultural Promotion Council
IFAD	International Fund for Agricultural Development
INESOR	Institute of Economic and Social Research (University of Zambia)
ITC	International Trade Center
MAFF	Ministry of Agriculture, Food and Fisheries
MOCTI	Ministry of Commerce, Trade and Industry
MOFED	Ministry of Finance and Economic Development
MFN	Most Favored Nation
NTB	Non-tariff Barrier
NTE	Non-traditional Export (all commodities except copper and other base metals)
NZTT	National Resources Development College ZEGA Training Trust
OPPAZ	Organic Producers' and Processors' Association of Zambia
PTA	Preferential Trade Area (COMESA)
SACU	Southern Africa Customs Union
SAFEX	South African Futures Exchange
SADC	Southern Africa Development Community
SHEMP	Smallholder Enterprise Marketing Project
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WTO	World Trade Organization
ZACCI	Zambia Association of Chambers of Commerce and Industry
ZACE	Zambia Agricultural Commodity Exchange
ZAHVAC	Zambia Association for High Value-Added Crops
ZAMTIE	Zambia Trade and Investment Enhancement Project
ZATAC	Zambia Agribusiness Technical Assistance Center
ZCCM	Zambia Consolidated Copper Mines
ZCGA	Zambia Coffee Growers' Association
ZCSMBA	Zambia Chamber of Small and Medium Business Associations
ZEGA	Zambia Export Growers' Association
ZIC	Zambia Investment Centre
ZNFU	Zambia National Farmers' Union
ZSC	Zambia Sugar Company

## MEMBERSHIP OF REGIONAL TRADE BLOCKS

### **COMESA**

Angola  
Burundi  
Comoros  
Congo (DR)  
Djibouti  
Egypt  
Eritrea  
Ethiopia  
Kenya  
Madagascar  
Malawi  
Mauritius  
Mozambique  
Namibia  
Rwanda  
Seychelles  
Sudan  
Swaziland  
Tanzania  
Uganda  
**ZAMBIA**  
Zimbabwe

### **SADC**

Angola  
Botswana  
Congo (DR)  
Lesotho  
Malawi  
Mauritius  
Mozambique  
Namibia  
Seychelles  
South Africa  
Swaziland  
Tanzania  
**ZAMBIA**  
Zimbabwe

### **SACU**

Botswana  
Lesotho  
Namibia  
South Africa  
Swaziland

## **PREFACE**

In early 2000, with a number of international trade agreements, which could affect Zambia's agricultural trade patterns, coming into place – the COMESA Free Trade Area, SADC, and AGOA – ZAMTIE began to conceptualize a study of Zambia's potentials for agricultural trade and investment. As South Africa is Zambia's largest trade partner in non-traditional goods -- that includes everything except copper and cobalt -- and as the reductions in duties being offered Zambia, as a member of SADC would soon come into place, this was clearly a target of importance. In conceptualizing the study, we discussed its design and focus, of course with USAID, but also with other interested donors and stakeholders such as the Ministry of Agriculture, Food and Fisheries; the World Bank; ZNFU; ZEGA; the ACF and USAID'S ZATAC Project. We were encouraged to examine not only possibilities resulting from new trade agreements but also to look at non-traditional markets such as the Middle East. It was therefore with a rather open mind that we began the study but with perhaps some predilection that South Africa would turn out to offer significant new potential.

As we got into the study, we began to see more clearly that in terms of the most rapid growth potential, there was considerable additional market opportunity in the major areas in which Zambia had its principal agricultural exports – horticulture; cotton and cotton products; coffee; sugar; tobacco and, as a new comer, paprika. It was viewed that if opportunities that existed in these areas could be grasped and if the barriers to trade and investment in these areas could be overcome, this would be where the greatest impact could be achieved in terms of export growth, job creation, income generation – and thus poverty alleviation – and the development of new export products and markets. As a result, the project focused on horticulture, cotton and cotton products, coffee and paprika. Sugar only received minor attention because growth in this area depends more on investment decisions of one or two major investors who would undoubtedly be better able to assess the area than ZAMTIE. We did not place emphasis on tobacco as a matter of USAID policy. In a similar summary fashion, 18 other products were also examined for their trade and investment potential.

South Africa is clearly going to remain a big player as an investor and as a market for Zambian agribusiness. Somewhat more surprising is the importance of the Democratic Republic of the Congo as a market for agricultural based products. If informal trade were captured, it may already be Zambia's largest market for these products and it has enormous growth possibilities. Another finding was the large potential that is emerging in the cotton-textile sector as a result of the relatively new American initiative called the African Growth and Opportunity Act. This results from features of the act that will stimulate more developed Southern African countries such as South Africa and Mauritius to purchase Zambian cotton, yarn and textiles and the excess processing capacity that Zambia has on hand in these areas.

The study team, John Keyser as team leader along with Terry Heslop and James Abel, deserve congratulations for a job well done.

Ron Black  
Chief of Party



## **ACKNOWLEDGEMENTS**

Much of the information on recent sector performance and new trade and investment opportunities presented here is based on discussions with Zambian and South African private sector operators, representatives of trade and producer associations, government officials, market consultants, development project staff, farmers, extension officers, input supply companies and others with a detailed knowledge of Zambian agriculture and regional market potential. This paper would not have been possible without the contributions of each individual and the assistance of all people met is gratefully acknowledged.

Special thanks go to Mbikusita Lewanika, Director General of the Zambia Investment Centre; J. Mwenya, Director General of the Export Board of Zambia; Dr. Moses Banda, Permanent Secretary of the Ministry of Commerce Trade and Industry; AK Banda, Director of Planning and Cooperative Development, MAFF; Antony Mwanaumo, Director Agricultural Consultative Forum; John Kasanga, Director, IMCS Ltd.; Luke Mbewe, Chief Executive, ZEGA; Jim LaFleur, Executive Director of the Zambia Agribusiness Technical Assistance Centre; Sue Gale, USAID Private Sector Manager; Cris Muyunda, USAID Agribusiness Specialist; Jan-Joost Nijhoff, In-country Coordinator, MSU Food Security Research Project; George Allison, Country Director, CLUSA; Nick Wilkinson, Managing Director, Dunavant Cotton; Joe Taguma, General Manager, Zambia Coffee Growers' Association; Lionel H.E. de Roland-Phillips and Natasha Wallace, Directors I&M Smith Pty. Ltd.; Catherine Mwanamwambwa, Chief Executive Officer, BIMZI Ltd.; Mark Terken, Managing Director, Cheetah Zambia Ltd.; August Winter, General Manager, Sapekoe Estates; Neil Slade, Managing Director, Agriflora Ltd.; John Henderson, Technical Manager, York Farm; Newton Young; Waka Waka Ranch; and Peter Venter, South African Fresh Produce Market Development Consultant.

## MAP OF MAJOR TOWNS

### ZAMBIA: MAJOR TOWNS



**MAP OF AGRO-ECOLOGICAL ZONES**

# **Zambia Trade and Investment Enhancement**

## **TRADE AND INVESTMENT OPPORTUNITIES IN AGRICULTURE**

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### **INTRODUCTION**

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#### **I. OBJECTIVES AND SCOPE**

1. The USAID-supported Zambia Trade and Investment Enhancement Project (ZAMTIE) became operational in early-2001 under a four-year contract to promote new trade and investment in three areas of the Zambian economy – agriculture, natural resources and tourism. This study looks exclusively at opportunities in the agriculture sector and was commissioned by ZAMTIE to address three important issues. Specifically:

- What areas of agriculture offer the best opportunities for growth and investment;
- What strategies can be used to exploit these opportunities; and
- How can ZAMTIE best leverage its position and help to implement these strategies?

#### **A. Approach**

2. With respect to the first question, the approach taken has been to consider the constraints and opportunities for a broad range of agricultural commodities with special emphasis on already established areas where relatively small investments and discrete project interventions by ZAMTIE and others could make a substantial contribution to overall economic growth, employment generation and improved sector performance. In the case of export horticulture, for example, which is already Zambia's leading agriculture export sector with a gross value of USD 51.4 million in the latest 2000 export season, a relatively small growth of just 10 to 20 percent could generate an additional USD 5.14 to 10.28 million in foreign exchange revenue respectively. By comparison, groundnuts, which also grow very well in Zambia, only generated some USD 149 000 in foreign revenue in 2000.<sup>1</sup> Even if the groundnut sector were to double in size over the next few years, therefore, total export value would still only account for a small fraction of the current value in horticulture. Apart from horticulture (fresh flowers and vegetables), other crop sectors thought to offer similar potential for meaningful growth, employment generation and broad participation include cotton, coffee and paprika.

3. This approach is not to deny the importance of crop sectors like groundnuts and other commodities widely grown in Zambia including maize, sorghum, dry beans, sunflower, soybeans, beef, dairy and poultry and general investment opportunities in these sectors are also discussed. In terms of a broad strategy for agriculture sector development, however, low value to weight ratios, limited production capacities and problems with disease control restrict

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<sup>1</sup> EBZ, 2001.

the opportunities to attract new investment and achieve major growth in these areas. Likewise, several niche products including mushrooms, sun-dried tomatoes, crocodile skins, castor beans and flower seeds also offer good opportunities for trade and investment, but cannot be expected to match the potential for broad development in other more established areas of agriculture. ZAMTIE certainly has a useful role to play in building awareness and fostering dialogue on activities that address key bottlenecks in these minor sub-sectors, but as a relatively small project with limited human and financial resources, is likely to be able to focus its efforts more effectively on a few areas of major strategic importance with opportunities for high financial returns.

4. With regard to the second question of what can be done to exploit new investment opportunities in Zambian agriculture, the approach taken has been to identify key blockage points in the commodity value chain that inhibit growth and investment. These blockage points may include problems with access to affordable investment finance, poor credit recovery on input loans to smallholder farmers, limited market access, failure to take advantage of new tariff incentives or low domestic quality standards. For each product covered, a brief discussion of past performance, new opportunities and market constraints is followed by a consideration of possible investment strategies that could lead to improved sector performance and enhanced trade. Special attention is given to a detailed understanding of investment opportunities in cotton, coffee, paprika and horticulture, which are thought to offer the greatest potential for meaningful growth, with more general treatment of other commodity sectors.

5. With regard to the role of ZAMTIE in helping to implement these development strategies, the approach has been to identify a set of possible next steps that could promote improved performance and enhanced trade in each priority commodity sector. Importantly, most of these interventions would likely require broad support from a range of sector stakeholders including current private investors, commercial banks, GRZ ministries, donors and community leaders alike. Because ZAMTIE cannot be expected to mobilize this type support on its own, let alone to manage the full implementation of a sector development strategy, most emphasis is given to identifying specific areas where the project could help stimulate dialogue on key factors that inhibit growth. Again, the approach has been to identify areas where relatively modest interventions could be expected to have a broad impact, and there is a clear role for ZAMTIE to foster dialogue on these opportunities and further refine the sector strategies through carefully planned technical assistance and ongoing discussion with key stakeholders.

## **B. Presentation**

6. This report is in three parts. Following the current Introduction, Part One considers the nature of opportunities for agricultural trade and investment in Zambia. This section looks at main bodies responsible for promoting new trade and investment and considers ZAMTIE's particular niche in helping to work toward these objectives. Part One then considers the investment climate in Zambia including natural resource potential, macroeconomic considerations, investment policy, regional dynamics and perceptions of opportunities by foreign investors. Next, Part One looks in some detail at Zambia's current trade pattern to identify areas of potential growth and also at the impact of recent trade protocols for regional and international competitiveness. Finally, Part One concludes with a brief overview of some of the factors any investor would need to consider in planning their own business strategy.

7. Part Two then outlines the criteria used to define the list of priority commodities believed to offer the greatest potential for enhanced trade and investment. These sectors are considered in more detail in Part Three. Before giving full attention to the so-called priority sectors, however, Part Two provides an overview of trade opportunities in other areas of

agriculture including types of strategy that could be used to support overall development and new investment in grains, oilseeds, traditional cash crops, livestock and other products.

8. Part Three then presents the detailed intervention strategies for each of the four priority sectors selected for detailed analysis including cotton, coffee and paprika and horticulture. For each commodity, discussion of recent performance, market opportunities, bottlenecks and leverage points is followed by a set of strategic interventions that could be used to help improve sector performance and attract new investment.

### **C. Methodology**

9. The analysis was prepared by a team of three consultants from late August until mid-October 2001. The study team included a Market Analyst (Mr. James Abel) who was responsible for researching the impact of recent trade protocols on Zambia's competitive position and factors that shape investment opportunities and market growth across the agriculture sector. A Market Strategist (Mr. Terry Heslop) was responsible for preparing background information and strategic recommendations for the priority commodities considered to offer the best potential for growth and effective ZAMTIE intervention. The Team Leader (Mr. John Keyser) took responsibility for preparing the final report, including analysis of Zambia's trade patterns and synthesis of strategic market opportunities and investment considerations.

10. Data collection was carried out both in Zambia and South Africa, the latter being Zambia's largest trade partner and a major source of potential investment. Key informant interviews were carried out in both countries with leaders of individual commodity sectors with special emphasis given to participants in cotton, coffee, paprika and horticulture. Others with a detailed knowledge of growth and investment opportunities including the Zambia Investment Centre, Export Board of Zambia, commercial banks, producers' associations, government officials, trade representatives, commodity brokers and farmers were also consulted for relevant information and feedback on the strategies proposed in this report. A complete list of list of people met and other contacts that could help plan further details of specific investment strategies is given in Appendix 1.

11. Preliminary findings and recommendations of the study team were presented in a half-day workshop in Lusaka and also during a two-day ZAMTIE-sponsored workshop in Chipata for Eastern Province regional business associations. The comments, suggestions and ideas on possible new investment opportunities identified by the participants of both workshops greatly facilitated preparation of the final report. The agenda and list of participants for the Lusaka workshop is given in Appendix 2.

### **D. Limitations**

12. In interpreting the discussion that follows, it should be stressed that this study is not an appraisal of actual business plans. Broad strategies are identified that could enhance sector performance, but the best approach for individual investors still depends on the personal circumstances and objectives of each entrepreneur. Certainly opportunities exist for individual investors to make money trading other commodities such as organic honey collected from village beekeepers, by processing mangoes to make fruit chutney or by establishing a poultry unit to supply the local market. It would not be appropriate, however, to prepare a business plan for these possible investments and then look for an investor to take up the opportunity. Each entrepreneur must decide what is best for them and then set about the task of market research to identify the best strategy given their own particular circumstances. In this respect, the actual outcome of this analysis in terms of real improvement and growth of Zambian agriculture depends on the business decisions of private

investors and on follow-up by ZAMTIE and others to promote the recommendations and opportunities identified here.

13. It should also be stressed that this study focuses mainly on opportunities for regional trade with Zambia's neighbors and also with the USA and Europe for specific products. Many other trade and investment opportunities exist including potential for new business contacts with the Middle East, North Africa and Eastern Europe among other markets. Again, the emphasis of this study is on crop sectors and markets that offer the greatest apparent potential for rapid growth and expansion. As with all business deals, individual entrepreneurs will naturally continue to explore new possibilities and it is not feasible given the resources available for this study to explore all such opportunities. Over time, projects like ZAMTIE certainly have a role to play in helping to build awareness and provide information on these possible outlets, but individual investors must still take final responsibility for identifying the market strategies best suited to their own business.

## **II. BACKGROUND TO THE STUDY**

14. Agriculture development in Zambia has long been regarded as essential for sustained improvement in economic performance and a broad reduction in rural poverty. Zambia's favorable climate and abundant natural resource base, including vast irrigation potential, mean that an almost limitless range of crops can be grown in the country. Despite the strategic importance of agriculture, however, the sector has never lived up to its full potential. In most years, agriculture accounts just 18 to 20% of Zambia's Gross Domestic Product (GDP). This is despite the fact that more than 50% of the population depends directly on agricultural production for their livelihood, including rural women who constitute more than 65% of the rural population.<sup>2</sup>

15. Against this background, a commonly agreed upon statement is that the development of agriculture is critical to Zambia's economic survival, both as a source of export revenue and poverty reduction. To address this challenge, several development projects are already working at many levels in the agriculture sector to promote improved production technologies, extension services and basic infrastructure. Several projects are also working to develop new commercial market linkages needed to support the transition away from subsistence farming as a rural lifestyle and way of coping with poverty to commercial farming as a business enterprise and route out of poverty. Most of these projects, however, have tended to focus on farm-level issues and domestic market outlets, whereas ZAMTIE now plans to focus more on international business linkages and improving the overall trade and investment climate.

16. Within this context, the current study is focused on understanding current trade patterns and major bottlenecks that prevent Zambia from realizing its full potential for growth and investment in major commodity sectors. Obviously, this report cannot be read in isolation and many other studies have looked in more detail at key issues that affect the opportunities for enhanced trade and rural development. Of particular note is a study now being prepared by IMCS that is expected to look in detail at Zambia's agriculture competitiveness measured by the financial and economic returns for many different smallholder and commercial farm crops.<sup>3</sup> Other recent reports have looked at the need for improved grades and standards for agriculture trade and a study on the duality of Zambian agriculture, both sponsored by

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<sup>2</sup> Republic of Zambia, 2001.

<sup>3</sup> Report being prepared by IMCS, Ltd. Other research also on the costs and profitability of Zambian agriculture (measured in financial and economic returns) include World Bank, 1996

USAID.<sup>4</sup> Other studies have considered the detailed impact of regional trade protocols and the competitiveness of the agri-food processing sector. Importantly, the USAID-supported ZATAC project has also undertaken a number of detailed sector studies of farmer-market linkages.

17. In interpreting the discussion that follows, it should also be noted that Zambian farmers are normally categorized as falling into one of three categories including smallholder, emergent and commercial farmers. Smallholder farmers mainly produce at the subsistence level, but normally also grow one or two cash crops on a limited basis to raise income for household expenses. These farmers are mostly resource poor and depend on external support for inputs and other services; most cultivation is by hand-hoe. Emergent farmers share many characteristics with smallholder growers, but have advanced to more of commercial orientation and generally farm a much larger area, up to around 10 hectares using ox drawn equipment. Sometimes these growers may also hire a tractor if available. Despite having a more commercial orientation, these farmers are still constrained by the lack of access to agricultural inputs and secure market outlets and so also give high priority to food production. Opportunities to obtain credit through formal financial institutions are virtually non-existent for both smallholder and emergent farmers, partly because the availability of titles for collateral are difficult to obtain and expensive for small farmers. Large-scale commercial farmers are fully market integrated and make extensive use of modern technology, irrigation and waged labor. These farms can sometimes be very large and may cultivate more than 200 hectares in total.

18. Throughout this report, the term “smallholder farmer” is typically used to refer both to small-scale subsistence farmers and more commercially oriented emergent farmers. Nearly every Zambian farmer plans to market some of their total production each year for cash and this approach is consistent with ZAMTIE’s focus on commercial investment and new market linkages. Where a distinction is still important between the smallholder and emergent sectors, this is noted as part of the discussion.

### III. OVERVIEW OF MAIN FINDINGS

19. Several key points stand out from the analysis with implications for priority and other areas of agriculture. Briefly, these may be summarized as follows.

20. **Most new markets are to the north.** First, and most important, it appears that some of the best opportunities for expanded agriculture trade are with Zambia’s regional neighbors in COMESA rather than South Africa and other more developed markets in SACU. Although the total size of the SACU market compared with other regional outlets is still of considerable strategic importance, Zambia’s physical location means it is more likely to compete successfully in other COMESA markets like the Democratic Republic of Congo, Malawi and Tanzania.

21. The DRC is of particular importance in this regard because of its proximity to some of Zambia’s major farm areas. Whereas Zambia is constrained by high transportation costs into South Africa, for example, the exact opposite is true with regard to the Congo thereby creating an opportunity to export certain products (including fresh foods) that other countries cannot land at a competitive price. Likewise, for farmers in Eastern Province, Malawi is likely to offer the greatest opportunities for expanded trade due to its close proximity compared with Zimbabwe and South Africa. Importantly, these non-SACU markets also tend

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<sup>4</sup> Giovannucci, 2001; SGS Lusaka, 1999 respectively



to have lower grades and standard specifications compared with South Africa, thereby making it easier to penetrate these outlets.

22. The analysis also shows that major developed country markets outside of Africa are of considerable importance and likely to offer greater opportunities for high-value products than South Africa and other SACU countries. This is especially true in the horticulture sector, where market opportunities in South Africa are constrained by the limited purchasing power and consumer tastes of most potential buyers. Certainly the importance of South Africa as Zambia's leading trade partner cannot be overlooked, but it seems that the greatest potential for long-term expansion may lie elsewhere.

23. **Macroeconomic uncertainty inhibits new investment.** Zambia's weak macro economy is one of the main constraints to successful new investment and enhanced trade. Specific problems include high inflation, erratic exchange rate movements, steep interest charges and high import duties on fuel and other essential inputs, which all make investment planning difficult with increased uncertainty and risk. Individual entrepreneurs naturally have to find some way of working within this economic environment and cannot plan or expect any major improvement in the near future. Over the long run, however, these areas certainly offer scope for policy dialogue with government and projects like ZAMTIE can play a useful role in bringing certain issues to the attention of national decision makers and potential investors alike.

24. **Increased production is needed to attract new investment.** Zambia has never lived up to its full potential for agricultural production and investors are constrained on many levels by the lack of sufficient produce needed for effective economies of scale and to attract international buyers. In the cotton sector, for example, current production is well below Zambia's processing capacity with textile manufacturers reporting that their main problem is finding enough cotton to turn into yarn, cloth and finished garments. Likewise, in the horticulture sector, much of Zambia's cold storage infrastructure is now sitting idle and the main challenge to negotiating lower cost airfreight is to build Zambia's production base. Many niche products including sun-dried tomatoes, castor beans, honey and beeswax also offer good trade potential with most investors saying there are no problem identifying potential buyers and market outlets for these commodities, but that the main problem is finding sufficient volumes to trade on a regular basis.

25. So far, one of the main strategies to promote increased production has been to organize farmers on an outgrower basis, but this entails considerable risk in terms of the potential for side selling to buyers that did not support the crop. Certain options are available to improve the efficiency of these systems (including an increased emphasis on group rather than individual liability), but Zambia may also need to explore other ways of bulking produce on a regional basis to attract the interest of international buyers. Improved access to affordable investment finance with sufficient grace periods could also do much to improve overall productivity.

26. **Insecure business transactions have discouraged growth.** The legal context for business transactions in Zambia must be addressed to ensure more transparent and secure business operations. On the domestic front, this is most obvious with respect to outgrower schemes where the issue of side selling is treated mainly as a problem of the scheme manager. In this case, there needs to be a very clear and explicit recognition that any agent who buys a crop they did not support is purchasing stolen goods and, as such, should be liable to criminal prosecution. Presently, the information needed to tell who has supported a particular crop is not always available and it seems the introduction of a crop register or pledge database for selected commodities could go a long way to improving the efficiency of Zambia's outgrower programs.

27. On the international level, many buyers of Zambian commodities also say they require improved security. This is especially true with respect to grains and other bulk commodities where government interference and political manipulation of commodity prices have sometimes resulted in large net losses for private investors. Problems whereby Zambian agribusiness companies fail to deliver the volumes of produce agreed with international buyers are also common, either because insufficient quantities are available for trade or because another more lucrative opportunity became available after the agreement was made. Clearly, this type of focus on short-term gain does considerable damage to Zambia's global reputation and may severely restrict the opportunities to develop new areas of future trade and investment.

28. **High production costs undermine Zambia's competitiveness.** Although this study did not look in any great depth at the relative production costs for specific commodities between Zambia and other regional producers, many of the people interviewed for this study pointed to problems with high prices, especially for fuel, electricity, telecommunications, fertilizer, agrochemicals, airfreight and other production factors as important barriers to trade. A more detailed analysis on the costs and returns of agricultural production is now being prepared by IMCS and is expected to include an analysis of how the costs in other countries compare with those in Zambia to help understand the country's competitive position. Regardless of how agricultural costs compare on a per hectare basis, however, it is still apparent that Zambia's limited production base means most investors are not able to realize effective economies of scale and that high overland transportation costs from remote locations have a major bearing on investment opportunities. Because a large share of the cost of specific inputs (especially for fuel) consists of import duties and value added tax, good scope may exist for more detailed analysis of these measures leading to policy dialogue with government on possible incentives for certain types of investment.

29. **Investment in agro-processing can be a good strategy option.** Because of the high costs of production in Zambia (including transportation), investments in value-added processing can offset some of this disadvantage. This strategy has been used in particular by investors in the paprika sector where grinding facilities and a new oleoresin extraction unit allow value to be added locally, thereby helping to compensate for high production costs. Similarly, with cotton there are good possibilities for stronger linkages with the domestic spinning and textile manufacturing industries, and the development of a freezing or dehydration plant could perhaps also improve efficiencies in the vegetable sector to the extent sufficient quantities are available for processing. Good opportunities also exist for improved oilseed processing (especially at the district level) and for the manufacture of peanut butter using local groundnuts.

30. **Improved systems of price discovery can help stimulate growth.** Smallholder and commercial farmers must be able to count on secure and remunerative markets before they undertake the risk of investing in a (potentially) high value cash crop. Although world commodity prices are beyond Zambia's control, it is clear that recent volatility and uncertainty has discouraged production in many sectors including cotton, paprika, coffee and horticulture. Zambia needs to build a more stable production base and steps that improve the efficiency of domestic pricing mechanisms could go a long way to achieve this objective. Especially for domestic vegetables, new wholesale facilities could be a real boost to smallholder farmers through improved opportunities for successful trade in high-value crops. There may also be a possibility of marketing roses through direct contracts with European buyers, which can dramatically improve profitability and so facilitate further growth.

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## PART ONE – ZAMBIA’S INVESTMENT CLIMATE AND TRADE OPPORTUNITIES

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1. This first part of the report gives an overview of some the main factors that shape the opportunities for new trade and investment in Zambian agriculture. Following a discussion of current promotion work by other agencies and strategic niche of ZAMTIE, the report looks at the macroeconomic environment including the availability of investment finance and regional dynamics as some of the most important constraints to enhanced performance. The discussion then turns to an analysis of Zambia’s existing trade patterns and new opportunities created by recent multilateral trade protocols.

### I. INVESTMENT AND TRADE PROMOTION

2. Many governmental and non-governmental bodies are working in Zambia to promote new areas of trade and investment. These include the Zambia Investment Centre, Export Board of Zambia and several other donor supported projects focused on market linkages and trade enhancement.

#### A. The Zambia Investment Centre

3. The Zambia Investment Centre was established under the Investment Act of 1991 as part of the government’s strategy for economic reform. The Centre is an autonomous institution that promotes both local and foreign investment, facilitates the investment process and monitors the implementation of projects. It also issues the formal Investment Certificate that serves as the official recognition of one’s investor status in the country. The Centre comprises five divisions, each headed by a Director who reports to the Director General. The Director General derives his authority from the Investment Board, which has strong representation from the private sector.

4. **Key functions** of the ZIC include (i) securing licenses, permits and authorization from government departments, local authorities and other relevant bodies; (ii) securing land, water, electricity and communication services; (iii) providing consultancy services; (iv) preparation of market surveys and economic sector studies; (v) dissemination of information on relevant laws, regulations, vital micro-economic information and statistics; (vi) arranging joint venture partnerships; (vii) assistance in acquiring land and title to land; (viii) advice on company formation; (ix) general legal advice to investors and potential investors; and (x) recruiting of personnel.

5. To this point the ZIC has mainly promoted investment opportunities in Zambia on the basis of the country’s abundant natural resources, political stability, liberalized market economy, duty free access to regional and African markets and quality of life. Although these are still the main selling points for investment opportunities in Zambia, the ZIC is now working to develop a new National Investment Plan that reportedly will provide potential investors with more of the specific information they require to plan business strategies. Specifically, the new **National Investment Plan** is expected to identify investment opportunities in all districts culminating in the preparation of district investment profiles. Within this context, the new Investment Plan is intended to both promote and facilitate local and foreign investment, enhanced private sector development, improved joint venture partnerships, increased industrial development and accelerated poverty reduction.

6. **Investment license.** As indicated, one of the key functions of the ZIC is to facilitate the process of investment licensing. The procedure for acquiring an Investment License begins with the submission of application forms together with non-refundable application fee of USD 250.00 (USD 293.75 including VAT). The application should be accompanied by (i) a business plan or feasibility study; (ii) company registration documents; (iii) proof of finance (bank statements and a letter of supplier's credit or loan agreement); and (iv) proof of premises (a Title Deed, letter of offer or Lease Agreement). The proposed funding structure should be such that each shareholder contributes a minimum of USD 50 000 towards the costs of the investment. A committee of representatives from key GRZ ministries and other bodies then reviews each application in a monthly meeting. Assuming the application is successful, a fee of USD 1 500 (USD 1 762.50 including VAT) is charged for the actual Investment License. The time taken from application to approval depends on when each application is lodged and how long the applicant must wait for the meeting of the committee.

7. Investment licenses are required of foreign investors, but also provide Zambian entrepreneurs certain protection against expropriation. Foreign investors need the license to lease or own property in Zambia and also to facilitate immigration procedures as a prerequisite for the issue of work permits.

### **B. The Export Board of Zambia**

8. The Export Board of Zambia (EBZ) is a statutory body created under the Export Development Act of 1985 and became fully operational in April 1987. Its mandate is that of developing and promoting non-traditional exports (NTEs) from Zambia into the global market. Since its inception, the EBZ has undertaken to stimulate growth in the export sector by launching a sustainable promotional drive that has played a major role in contributing to NTE growth over past years. Specific activities include:

- Active participation in specialized and general trade fairs within Zambia and in target export markets to which suitable export oriented firms are invited.
- Research in potential and target markets as a way of expanding Zambia's share of the global market.
- Undertaking trade missions in target markets to identify new areas of trade for Zambian exporters.
- Preparation of an annual Exporter Audit Report to evaluate and determine the performance of the export sector including success stories, constraints and recommendations.
- Collaboration with diplomatic missions, import promotion organizations, chambers of commerce, producer associations and trade related bodies to position Zambian exporters in the international market.
- Organization of training programs and seminars/workshops on topical issues affecting the export sector in Zambia.
- Making recommendations to Government in areas relating to policy, development and promotion of non-traditional exports for possible ratification.

9. The EBZ also helps make profitable business connections with the international market by linking Zambian exporters with importers by providing contact details, price lists, product specifications and country profiles of both potential and target markets for Zambian products. The task is made easier with the use of the most up-to-date and accurate information sources possible. These are available at the Trade Information Centre in EBZ and comprise (i) the Global Trade Point Network; (ii) trade directories; (iii) product and market reports; (iv) specialized publications; and (v) trade journals.

10. Of these, one of the most innovative features is the **trade point network**. Specifically EBZ is now linked to a worldwide computer network of trade promotion organizations through the Trade Point at its head office in Lusaka. At Trade Point Lusaka, market opportunities are targeted; export procedures and documentation are disseminated while facilities to enable smooth business transactions are made available to local exporters. Being strategically located, the Trade Point provides the most up-to-date electronic trade opportunities, links exporters with the global market and exposes small and medium size entrepreneurs to international commerce. The Trade Point Network also provides one of the fastest and least expensive ways of advertising to not less than 30 million people in 150 countries around the world.

### C. Other Promotion Bodies

11. **Local associations.** In addition to the statutory bodies described above, many other agencies are working to develop market linkages and promote new areas of trade. These include the Zambia Association of Chambers of Commerce and Industry (ZACCI), the Zambia Chamber of Small and Medium Business Associations (ZCSMBA) plus a number of producer associations including the Zambia National Farmers' Union (ZNFU), the Zambia Association of High Value-Added Crops (ZAHVAC), and the Organic Producers' and Processors' Association of Zambia to name just a few.

12. **Donor-financed projects.** There are also a number of donor-supported development projects working specifically to develop market linkages between smallholder farmers and private sector. Two projects are of particular importance including the USAID-supported Zambia Agribusiness Technical Assistance Centre (ZATAC) and the IFAD-financed Smallholder Enterprise and Marketing Programme (SHEMP). Specifically:

- **ZATAC** was launched in November 1999 to assist Zambian agribusiness and producer or trade associations and cooperatives to assess the economic and market viability for a range of strategic commodities with good market potential produced by smallholder farmers. ZATAC supports its clients by undertaking market demand analysis including marketing assessments, desk studies on trade flows, business and product profiles resulting in (i) improved information to help better understand each commodity sub-sector; (ii) increased success in identifying potential markets and niche areas for Zambian commodities; and (iii) stronger promotion of Zambian products in targeted markets to attract investors and value-added opportunities. Intensive firm-level services are also available for market entry and product development strategies, business plan development and financial proposal writing.
- **SHEMP** was launched in 2000 as a GRZ agricultural support initiative through the Ministry of Agriculture Food and Fisheries (MAFF) with the goal of empowering smallholder farmers to participate gainfully in the market economy. The primary objective of SHEMP is to improve

smallholder incomes by improving farmer access to inputs and services from the private sector. In a bid to assure maximum impact of program activities, SHEMA will focus its interventions in those areas with high commercial activity, which provides favorable conditions for production and sale of surpluses. Specific objectives include (i) to facilitate formation and strengthening of farmer enterprise groups and to develop the capacity of local institutions to form such groups; (ii) to improve physical access to input and output markets; (iii) to promote diversification in production and marketing of smallholder outputs; (iv) to improve capacity for legal/policy dialogue and formulation and for building consensus on market linkage principles; and (v) to facilitate cost-effective, competitive and efficient networks of agribusiness/trading enterprise serving smallholder farmers.

#### **D. ZAMTIE's Strategic Niche**

13. With such a very broad range of trade promotion bodies already working in Zambia, it is important to define ZAMTIE's strategic niche very clearly in order to avoid duplication and maximize potential synergies. At the same time, however, it is also important not to over-specify ZAMTIE's role so that it can remain flexible and respond on a demand driven basis to promote new areas of trade and investment identified by private entrepreneurs. Accordingly, the discussion here does not aim to map out a comprehensive strategy for ZAMTIE, but rather seeks to identify areas where the project could make a unique contribution.

14. First, unlike other donor-supported projects including ZATAC and SHEMA, the ZAMTIE mandate is not guided by any special emphasis on smallholder farmers or rural poverty alleviation. Rather, the emphasis is on improving the trade and investment environment in the agricultural economy and other sectors where ZAMTIE also operates. Furthermore, whereas many other development projects focus on business transactions at the farm-level, ZAMTIE is more concerned with transactions at a higher level of the commodity value chain, including new opportunities for value-added processing and international trade.

15. ZAMTIE can also play an important role by working in partnership with existing donor projects and trade promotion bodies to address key constraints that inhibit growth and investment in selected commodity sectors. This can include working with the ZIC and EBZ to strengthen their investor services and develop strategies to build increased awareness of possible investment opportunities; policy dialogue with the GRZ, donor community and other sector participants that address key blockage points; and identification of specific project activities that the private sector, donors and others could support to enhance sector performance and opportunities for new investment.

16. As a USAID supported project, ZAMTIE also has a clear role to play in helping Zambian investors gain access to markets in the United States. This is an especially topical area for intervention given the recent approval of the African Growth and Opportunity Act (AGOA) passed by the US Congress to grant Zambia and other African countries duty and quota free access to the United States for a broad range of products. This is possibly one of the most significant opportunities for new trade and development in Zambia and ZAMTIE could play a unique role by helping to build awareness of AGOA provisions and supporting new linkages between existing producers (including those being assisted by ZATAC and SHEMA) and lucrative US markets.

17. In defining ZAMTIE's strategic niche in agriculture, it is also important to stress that this is a very small project with only limited resources available to help build new areas of trade and investment. For this reason, it is vital that the project should focus its resources on carefully selected areas to ensure the maximum possible impact. As explained in the

introduction, this is a main reason why the current report gives most attention to understanding the constraints and leverage points in priority commodity sectors where only a small improvement in output and discrete project interventions could have a major impact on export revenue, employment creation and agriculture profitability.

18. Finally, it must also be stressed that the outcome of any investment decision depends on the skills, motivation and resources available to each entrepreneur. For these reasons, it would be inappropriate for ZAMTIE, or any other development project, to try and pick new sectors on the basis of some perceived potential, develop an investment strategy and then to look for investors to implement that strategy. Rather, the free market must also be allowed to do its job of attracting new investors and pointing entrepreneurs in directions where the greatest returns to capital can be achieved. ZAMTIE can certainly help build awareness of certain opportunities, but individual investors must still plan effective strategies that suit their own particular needs and aspirations.

## II. ZAMBIA'S INVESTMENT CLIMATE

### A. Natural Resource Potential

19. Compared with many other Southern Africa countries, Zambia has relatively abundant land, water and other natural resources for agriculture. Some 58% of Zambia's total land area and 42 million hectares is classified as medium to high potential for agricultural production, with rainfall varying between 800 and 1 400 mm annually. On the plateaus in close proximity to Lusaka, Livingstone, Kabwe and Chipata, soils are generally fertile and rainfall is sufficient for the production of a broad range of crops. Population density is extremely low in most of the productive regions, ranging from 1 to 11 persons per square kilometer. Further north, the soils are less productive under natural conditions, however, many of the physical constraints could be overcome with small investments in fertilizer and lime. The northern provinces receive ample rainfall and are quite sparsely populated. Overall, it is estimated that only 14% of Zambia's total agricultural land is currently being utilized.

20. Estimates of the technically irrigable area in Zambia range from 80 000 to more than 300 000 hectares. Thus far, only about 40 000 hectares have been developed – predominantly on large commercial farms. Past experience with government-developed and managed irrigation schemes was very poor although some GRZ and donor-supported programs have, more recently, been able to assist smallholder producer groups develop gravity fed water furrows, treadle pumps and dam construction to improve year-round water access for both crops and livestock. Thus far, very little attention has been given to the potential use of windmills for irrigation and it is only reasonable to assume that there could be good demand for this technology if effectively promoted through public and private channels.

21. The country is divided into three major agro-ecological zones as follows.

- **Zone I**, constituting 12% of Zambia's total land area, is divided into two zones, zone Ia and zone Ib. See map of agro-ecological zones on page x. Zone Ia covers 14% of Zambia, has relatively poor soils and low and erratic rainfall (less than 800mm per annum). Given its low altitude, the area is hot and humid and is not suitable for cattle rearing because of tsetse flies. The area is suitable for production of drought resistant crops like cotton, sesame, sorghum and millet. Zone Ib covering the area to the west of Zambezi river in Western province, is also characterized by low rainfall (less than 800mm per annum). This zone is however

suitable for extensive cattle and cashew nut production, and has limited potential for cultivation of sorghum, millet, and cassava.

- **Zone II.** The Central, Southern, and Eastern fertile plateau generally contain the most fertile soils in Zambia. The zone constitutes 42% of the country but is characterized by a moderate seasonal rainfall of 800 1 000mm annually and large areas of relatively fertile soils. Permanent settled systems of agriculture are practiced. A variety of crops are grown in this zone including maize, cotton, tobacco, sunflower, soybeans, irrigated wheat, and other arable crops. The area is also highly suitable for beef, dairy, poultry, and vegetable production.
- **Zone III.** The Northern high rainfall zone comprises the Copperbelt, Luapula, Northern and Northwestern provinces. Rainfall is abundant, with an annual average of more than 1 200mm. The zone occupies 46% of the country's total land area. With the exception of the Copperbelt, the zone is characterized by highly leached, acidic and relatively infertile soils. It has good potential for the production of millet, cassava, sorghum, beans and groundnuts. Increased exploitation of the fisheries resources and introduction of fish farming offer good opportunities for development. The perennial streams in this zone can be utilized for small-scale irrigation.

## **B. Historic Context**

22. For many years, the agricultural sector, like the rest of the economy in general, operated under a controlled policy environment. The past agricultural policies were characterized by excessive government intervention and control. Economic management was mainly through state institutions using various instruments, such as agricultural input and marketing subsidies, foreign exchange controls and controls on interest rates. Revenue, mainly from copper, was used to invest heavily in parastatal firms and high tariffs and import licensing ensured their protection. Inevitably, this stifled private investment in productive sectors and retarded the development of the agricultural sector that became entirely dependent upon an increasingly inefficient public sector.

23. At the close of the Second Republic in Zambia, in the wake of dismal agricultural performance, serious economic reforms were undertaken that continue to have a profound effect on most of the economy. The liberalization of the agricultural sector in early-1992 included the near total retreat of government from its previously primal role in every aspect, from the inputs markets to final retailing. Most of the agricultural sector was unprepared for the consequences of this rapid shift to a market economy. Because of the abrupt retreat of government without the concurrent creation of new support systems, agriculture has been left in an institutional vacuum.<sup>5</sup>

24. Concerted efforts have been made since 1992 to liberalize the agricultural sector. Notable policy measures undertaken include the elimination of price controls and subsidies, privatization of former parastatal companies, increased private sector involvement in commodity marketing and input supply and also the restructuring of MAFF to account for its new responsibilities in a market economy compared with the days of central planning. There is, however, still an unfinished policy agenda for the sector given existing major constraints and challenges. These include poor service delivery particularly for small-scale farmers, marketing constraints especially in outlying areas as a result of poor infrastructure notably

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<sup>5</sup> World Bank, 1996b.



feeder roads, a void in agricultural finance and credit, weak regulatory framework and poor enforcement of legal framework, and poor accessibility and administration of land in Zambia. These constraints need to be seriously and urgently addressed if agriculture is to develop.

### C. Macroeconomic Considerations

25. Zambia's weak macroeconomic environment is one of the main constraints to successful new investment and enhanced trade performance. Specifically, problems with high inflation rates, erratic exchange rate movements, steep interest charges and high import duties on fuel and other essential inputs together militate against the opportunities for successful investment. Individual entrepreneurs naturally have to find some way of working within this context and cannot plan or expect any major improvement in the macroeconomic situation anytime in the near future. Over the long run, however, these areas certainly offer scope for policy dialogue with government and projects like ZAMTIE can play a useful role in bringing certain issues to the attention of national decision makers and potential investors alike.<sup>6</sup>

26. **Domestic inflation.** Zambia's annual inflation reached 30.1% in December 2000, nearly 11 percentage points higher than the original government target of 19% for the year. Contributing to the overall rate was a big increase in food prices towards the end of the year, particularly for fresh dairy products, oil, vegetables and sugar. The repeated rises in fuel and electricity prices had a knock-on effect throughout the economy and in early January 2001 the World Bank approved USD 30 million in balance-of-payments support to help offset the impact of these increases. Furthermore, erratic exchange rate movement and recent depreciation have increased the price of imported capital and consumer goods.<sup>7</sup> At the same time, it should be noted that currency depreciation can also stimulate Zambian exports.

27. With respect to agriculture, one of the problems caused by these high inflation rates is that they encourage investors to seek quick returns. Clearly, this is not a general characteristic of agriculture where several months must elapse from the time of planting until harvest. Therefore, until inflation can be brought under control, other sorts of investment may appear more attractive than traditional farm enterprises and commodity trade. On the other hand, for farmers and others already invested in the sector, high inflation can quickly erode profits and make planning extremely difficult. This is one reason non-traditional, dollar-based investments such as export roses, coffee, paprika and tobacco have appeared so attractive in recent years and tended to outperform other sectors.

28. **Interest rates.** Developments with regard to inflation also have a bearing on the interest rates banks charge farmers and other entrepreneurs for seasonal and long-term investment loans. Given the high inflation rates described above, it is unsurprising that interest charges are also high. As of July 2001, the weighted lending base rate charged by the Bank of Zambia to other financial institutions stood at 45.2% compared with 39.1% in July 2000 and 41.4% in July 1999. Because commercial banks must charge a margin over this base rate to cover their operating expenses and make a profit, however, actual rates charged to farmers and other investors have been closer to 50%. Even in real terms, once the effects of inflation are taken into account, these rates remain extremely high at around 20% per annum. Clearly, such very high charges, even in real terms, make it extremely difficult for investors to operate. This is particularly true since many farmers are still struggling to pay off debts incurred over previous seasons. A significant reduction in interest charges could therefore go a long way to solving the liquidity crisis now facing agriculture and help improve investor confidence. As one of the most important areas with an impact on opportunities for enhanced

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<sup>6</sup> A good example of this is the recent report prepared by ZAMTIE (LaFleur, 2001) on the impact of cascading tariffs for low-value commodities.

<sup>7</sup> PTA Bank, 2001.

trade and investment, more detailed information on possible sources of agricultural credit and investment finance are given below.

29. **Taxation.** Although economic conditions with regard to inflation and interest have generally not been conducive to growth, a number of tax incentives in the form of tariff reductions for agricultural inputs have been introduced in recent years. Further reductions are also expected as part of the harmonization with the new COMESA and SADC trade protocols.

30. While these changes may appear significant, their overall effect on the sector has been mixed. In the first place, tariff reductions on imported inputs tend to benefit commercial farmers only since the traditional sector (which accounts for the majority of producers) makes much less use of the affected inputs. Furthermore, there is a risk that the policy of allowing districts to collect their own taxes through grain levies and other channels could have especially negative consequences for smallholder farmers since there is little harmony between the rates charged by each district and profits are already low without the burden of an additional tax.

31. **Duty drawback.** To enhance the competitiveness of Zambian exporters, a duty drawback scheme has been introduced under which import duties paid on inputs used to produce goods for export can be refunded. Administrative delays with the disbursement of rebates, however, have limited its effectiveness in providing an incentive to new exporters to undertake the risk of potentially lucrative new investments.

32. **Exchange rate.** Compared with other countries in the region, Zambia's liberal exchange rate policy is a considerable advantage and strong incentive to invest in this country. Zambia maintains no formal control over the exchange rate and investors are free to maintain their holdings in either a local or foreign currency denominated account. This is not the case in either Zimbabwe or South Africa where there are restrictions on foreign transactions including the length of time funds can be held in foreign currency. Nevertheless, recent movements of the Zambian Kwacha against major world currencies have been somewhat erratic with a very large and unexpected re-appreciation early this year followed by a sharp and then more usual gradual depreciation. Until conditions in the overall economy improve to withstand shock and ensure a more consistent rate of exchange, this type of volatility clearly represents an important investment risk.

33. **HIPC.** One very positive development of potentially great significance to export development is that Zambia reached the HIPC decision point in early December 2000, and has been granted debt-service relief of more than USD 3.8 billion equivalent to USD 2.5 billion in net present value terms. This translates into a reduction in annual debt service payments of USD 260 million in 2001-05 and USD 130 million in 2006-15. Under the terms of this agreement, Zambia is expected to use the funds saved on debt service to implement programs agreed under the new Poverty Reduction Strategy Paper.<sup>8</sup> Apart from the obvious benefit of increased spending in these areas, HIPC could also alleviate some of the exchange rate pressure on the local currency, which normally experiences depreciation when block funds are converted for debt service.

#### D. Other Constraints

34. **Transportation.** As a land-locked country, high transportation costs have a major bearing on the opportunities for trade and investment in Zambia. It is no accident that relatively high value commodities like paprika, coffee and horticulture account for a relatively

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<sup>8</sup> GRZ, 2001b.

large share of Zambia's agriculture exports (see below). Unlike products with a low value to weight ratio including maize, sorghum and sunflower, for example, these higher value commodities are better able to cover high overland transportation costs and still provide the exporter an attractive profit. Although it is often suggested that Zambia's natural resource potential is such that the country should be the "grain basket of southern Africa," the high cost of overland transport (and complete lack of bulk handling facilities) actually suggest that Zambia may have little comparative advantage as an exporter of low value grains, except to even more isolated markets like the Democratic Republic of Congo, or to other nearby deficit areas on an ad hoc basis in times of local shortage.

35. High transportation cost and the poor condition of Zambia's rural road network also restrict the opportunities of investment in outlying areas. This is most obvious in the case of small-scale farmers living far from the main road network where the high cost of bringing inputs to the farm and outputs to market often leave the grower with little choice except to produce for home consumption and limited sales in local and district-level markets. Even for commercial farmers, however, this can be a major constraint where most farmers must maintain their own feeder road network at considerable expense and effort.

36. Transportation by road is probably the most common way of moving agricultural commodities in and out of Zambia. In this respect, it should be noted that large differences exist between front and back load rates along most major routes. Between Lusaka and Johannesburg, for example, typical prices quoted for northbound freight are around USD 75 per ton compared with USD 45 for exports going south.<sup>9</sup> These lower prices for back load freight give a good opportunity to export, and it is interesting to note that the price of USD 45 per ton is about the same as the cost of moving bulk commodities from the port of Durban to Johannesburg. In other words, all other conditions being equal, Zambian produce is just about able to compete in the Johannesburg market, but would face increasingly stiff competition further south. Rail freight is also available, but costs about the same as road and is much less predictable. Airfreight is only possible for very high-value commodities like export horticulture (roses and specialty vegetables).

37. **Transaction costs in outlying areas.** Apart from transportation, other transaction costs for business deals with small-scale farmers can also be high, especially in outlying areas. Much of the trade in Northern Province, for example, is still through independent traders who take cash or goods to barter, such as used clothing, salt and blankets. These traders typically travel to an area by public transport and then spend two or three weeks camping and traveling on foot between isolated villages to buy small quantities of produce (usually beans, groundnuts and maize) until they have enough for trade. The trader has to pay local labor to carry the produce to the roadside, and the cost of hiring a truck to move purchases from the roadside into town, and then further beyond to a more substantial marketplace can be very high.<sup>10</sup> For these reasons, mill operators in outlying areas often report that it is cheaper to buy maize from distant commercial growers than small farmers located in the region.<sup>11</sup>

38. In more central locations and parts of Eastern Province, the situation is somewhat more advanced with larger operators working around the main provincial and district centers. For the most part, agricultural trade is just one aspect of these businesses, which may include wholesale shops in town and transport services. A few companies also have a limited capacity to process maize and oilseeds to meet local demand. To source raw materials, these medium-scale firms typically send their own buyers into the field with a small truck to buy directly from farmers. Because there are very few established bush markets in these areas, the

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<sup>9</sup> Lower backload rates are sometimes available, mainly on an informal basis negotiated with the driver.

<sup>10</sup> IFAD, 2001.

<sup>11</sup> FAO, 1998.

time it takes to collect a full load depends on the buyer's knowledge of the area and ability to get to a location first before another buyer comes in.<sup>12</sup>

39. In practice, an especially important function of these medium-scale traders is to serve as intermediaries between the large companies based in Lusaka and small-scale farmers. Many of the purchases carried out at the village-level are, in fact, undertaken as part of a contract to supply large processors and trading companies. If one of these firms wants to obtain 500mt of soybeans, for example, a common practice is to contract one or two medium-scale buyers to source the commodity on its behalf. In some cases, this may even involve some form of pre-finance for the trader to allow the purchase of the required commodity.

40. **Uncertainty and risk.** Another factor that adds significantly to the cost of doing business in Zambia is the uncertain nature of business transactions at virtually every level of the commodity value chain. This begins at the farm level where local traders often have problems sourcing sufficient commodities to justify trading in a particular sector. As described above, it can be very time consuming and costly to amass sufficient bulk commodities including maize, beans, groundnuts, sunflower and soybeans to justify doing business with smallholder farmers who often sell only very small quantities just to raise cash when needed. With higher value cash crops like cotton, tobacco and paprika, smallholder production in recent years has depended on input support through various types of outgrower arrangements, but the risk of side selling to an agent who did not provide pre-finance is a constant threat and has even led to the failure of some businesses.

41. At the international level, uncertain business transactions are also important including the possible risk of export bans and price manipulation for maize and other strategic commodities. Large grain trading companies in South Africa even went as far as to say they have little to no interest in doing business with Zambia until they can be certain the commodities they buy actually exist and are available for export. They noted that several trading houses have lost large sums of money in the past doing business in Zambia, either because commodities they bought on forward contract turned out not to exist or because of export restrictions and price interference by government. As one South African trader explained, the best thing the South African government has done to help agriculture is to maintain a completely hands-off policy with no price or trade interference. Until this type of security exists in other African countries including Zambia, South African traders quite simply prefer to buy any commodities they can't source on their own domestic market from overseas rather than from within the region.

42. **Limited production base.** Although Zambia's climate is ideally suited to the production of a great many commodities, only a relatively few items well suited to export production are grown in any great abundance. Even in relatively well-established areas like cotton, coffee, paprika and horticulture, there is still an urgent need to increase domestic production to allow more efficient economies of scale and increased export revenue. With respect to other more basic commodities like sunflower, soybeans, castor, wheat and rice, on the other hand, Zambia's small production base adds substantially to the cost of doing business and restricts the opportunities for profitable trade and processing without a major long-term investment to build production. Other crops like groundnuts, maize and beans are generally grown in greater abundance throughout the country, but only a small (and unpredictable) share of total production is sold for cash thereby also restricting investment opportunities.

43. **Developed country subsidies.** In various forms, The United States and European Union make substantial subsidies available to their farmers, particularly during times of

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<sup>12</sup> CLUSA, 1998.

depressed international prices. The net result of this is that farmers in these developed country markets are sheltered from free market signals, which would result in reduced production and enhanced competitiveness of countries like Zambia. Some estimates even suggest that, in some years, the US system of subsidies can make up 40% of farmers' total income. The continuation of this system means that the impact of oversupply is magnified on the farmers in developing countries. While this important disruptive pattern is well known and has been discussed extensively in international forums, the disadvantage for Zambian producers is important to keep in mind when trying to plan and anticipate possible areas of new trade and investment.

44. **Regional dynamics.** Zambia has long been beset by political turmoil in neighboring states that has stunted the opportunities for both economic and social development. On the economic front, the long closure of Zambia's borders and transport routes to the south through the former Rhodesia and old South Africa has had an enduring impact on the pattern of economic development and export trade. Prolonged civil wars in Mozambique and Angola and loss of possible transport links to port facilities in these countries have also previously stunted Zambia's economic growth.

45. More than 20 years after Zimbabwe's war of independence, turmoil in that country once again is having a major impact on development opportunities in Zambia. Apart from the uncertainty caused by the current political situation in Zimbabwe and bad reputation this creates for the entire southern Africa region, further problems relate to very dramatic parallel foreign exchange markets in that country. This fact was noted more often than any other point raised by the people interviewed for this study whereby the current official exchange rate for the Zimbabwe Dollar of ZWD 55 = USD 1 compared with the parallel rate around ZWD 425 = USD 1 at the time of data collection. Importantly, this gives a strong incentive for dumping of agricultural produce on the Zambian market at prices with which local producers cannot compete. Potential exports to Zimbabwe are also being constrained in that Zimbabwean buyers interested in Zambian goods are not always able to raise the hard currency needed to do business. More specific implications of these developments for individual commodity sectors are discussed further in Parts Two and Three.

46. **Perceptions of Opportunities in Zambia.** Although the Investment Centre and other trade promotion bodies have done much to build awareness of opportunities in Zambia, including the benefits of a fully liberalized market economy, much work still needs to be done to improve the country's reputation as a place for successful investment. Although there is a good appreciation in South Africa of the potential Zambia offers among pro-active entrepreneurs, many potential investors still have little understanding of the intricacies of the major opportunities and misperceptions of Zambia are still widespread. As noted, recent instability in Zimbabwe also undermines Zambia's and southern Africa's reputation more generally as location for long-term investment.

47. The Chambers of Business in South Africa are concerned with such development, and they are positive in their approaches. The South African Chamber of Business (SACOB) is the coordinating body for all chambers. SACOB is also involved in regional and international trade relations, and is a valuable ally for Zambian Chambers. According to SACOB Managing Director, the Chamber's members' view Zambia positively, but there still is concern regarding slow administration by import and customs authorities in Lusaka. SACOB is active in pursuing the opportunities presented by trade agreements such as AGOA, and will be a useful partner in regional approaches. The Johannesburg Chamber of Commerce likewise considers Zambia to be a traditional trading partner and is positive towards development. Both chambers are able to organize the reception of trade missions from Zambia.

### III. SOURCES OF INVESTMENT FINANCE

48. Problems with access to affordable seasonal loans for agricultural production and long-term investment finance are among the most important constraints to the development of new areas of trade and investment. ZAMTIE has already prepared a Directory of Financial and Technical Assistance Available in Zambia with more information on possible sources than provided here.<sup>13</sup> Nevertheless, it is still useful to review some of the key issues and constraints with seasonal and long-term investment finance since these have a major bearing on the opportunities for enhanced trade performance.

49. Agricultural credit and finance is governed by the Bank of Zambia Act, the Banking Act, the Financial Institutions Act, the Agricultural Credit Act, the Agricultural Charges Act, the Loans and Guarantees (Authorization) Act, Small-Scale Industries Act, Money Lenders Act, and other related Acts. In addition, the Cooperative Societies Act of 1998 provides for the formation, registration and regulation of savings and credit cooperative societies for promotion of savings among members and for creation of a source of financing for its members.<sup>14</sup>

50. **Agricultural credit.** Zambia's agricultural credit system has since independence been dominated by a number of quasi-government institutions. These financial institutions were limited in scope as they were focused on maize production and marketing. From the Land Bank in 1964, through the African Farmers' Improvement Fund to the Agricultural Finance Company and later Lima Bank, little seems to have been achieved due to the inherent high transaction costs and risks associated with providing credit to small-scale farmers, low recoveries, poor management, lack of savings mobilization, political interference and inadequate legal framework.

51. There has been a vacuum in agricultural financing since 1996, when the last of these institutions was liquidated. This vacuum has created problems for small-scale farmers in particular who have no access to credit and cannot borrow from commercial financial institutions. Recent measures have concentrated on resuscitating the moribund financial institutions but have been ad-hoc and without much success. The private sector has played a limited role in providing credit in form of inputs under outgrower arrangements, but problems with security is still an important constraint.

52. Commercial farmers with sufficient collateral are able to borrow from private banks, but high interest charges and minimum borrowing requirements still severely restrict farmer access. Two of the main banks providing secured short-term seasonal loans are:

- **Barclay's Bank** is one of the largest commercial bank lenders to the agricultural sector with an estimated 350 to 400 agricultural loans outstanding at any one time, with a value of approximately USD 162 million. Barclay's lends predominately to corporate clients (60%) and individual clients that can provide adequate security for the loans, 80% of which are short-term crop loans repayable in less than one year. Most of the crop loans are ZMK denominated and attract interest at 1% to 7% above the bank's base lending rate, at the time of the meeting quoted at 50% per annum.
- **Stanbic Financial Services.** Stanbic's largest agricultural borrowings are in the form of asset-based leases, with the bank taking 100% cover

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<sup>13</sup> Kapita, 2001.

<sup>14</sup> Republic of Zambia, 2001.

of the risk against the security of the asset. Leases are typically for 24 to 60 month periods, with the cost of the funds ranging from 47% to 56% per annum. Asset based loans usually start from a minimum of USD 50 000.

53. **Investment finance.** A variety of facilities are available to support long-term investment, but these often have very high collateral requirements or unfavorable repayment and interest schedules that restrict their uptake. Specific loan facilities sponsored by donor agencies include the following. These are being managed under the Bank of Zambia as the apex financial institution.

- **The European Investment Bank (EIB) special facility.** The most used facility appears to be the EIB fund set up by the European Union that makes USD based loans available at favorable interest rates ranging between 9% and 12% per annum. The borrower is required to repay the loan in USD and therefore is responsible for any depreciation in the value of the local currency. The EIB loan program is administered through the Bank of Zambia with Commercial Banks bearing 20% of the credit risk, the Bank of Zambia 30% and the EIB the balance. The program has not had widespread acceptance as the Commercial Banks do not see sufficient reward for taking a high level of risk for low interest earnings and have therefore continued to apply the same security requirements and stringent credit approval standards.
- **World Bank, ZAMPIP** is a loan facility with a minimum loan amount of USD 50 000 borrowed in either local currency, at a cost of funds of 47% plus up to 9% or, in USD at an interest cost of between 13% and 17%, depending on the security provided and the extent to which the funds are used for the provision of working capital. Interest is calculated at LIBOR plus 4% to 8%. Stanbic have advanced just three loans under this program to date.
- **Enterprise Development Fund** is an investment credit facility also under the Bank of Zambia providing USD base loans of up to USD 3 million for up to 3 years at an interest cost of LIBOR plus 4% to 8% with a maximum grace period of up to 17 months.

54. In addition to donor-supported projects, other important sources of investment finance include:

- **Bank of Zambia Export Credit Fund** is financing letters of credit for periods between three and nine months for the export of agricultural products. The export credit program is limited to a maximum credit of USD 1 million and the discount (effective interest) rate ranges from 5% to 10% above LIBOR.
- **The PTA Investment Bank** is a banking institution established by the members of COMESA to provide investment finance for worthy investment projects in COMESA countries. To date, five Zambian projects have received funding from the PTA Bank, the most recent of which is the resuscitation of a paprika processing facility near Lusaka. Previous PTA loans to Zambian agriculture gave support to a number of

individual sugar cane farmers. The PTA Bank seeks to invest in large projects of at least USD 500 000.<sup>15</sup>

- **The Commonwealth Development Corporation (The CDC)**, formerly a substantial equity investor in worthy agricultural development projects such as York Farm and Swarp Textiles, has some of its major investments in Zambia. The change in CDC's investment mission eliminates it from future consideration as an equity investor, although COMAFIN, a subsidiary of the CDC will continue to provide private equity investment finance to worthy venture capital investment opportunities.

55. **Conclusions.** Although the Zambian Government continues to talk about and apparently seems to wrestle with the difficulties of providing fully comprehensive agricultural credit and longer-term finance, no viable programs are actually in existence. The political power wielded under the Government fertilizer program continues to undermine the credibility of most credit, bank and outgrower programs. Until the majority of the Zambian farmers have an unassailable right to the land on which they farm, so that they can use that asset to raise additional capital, the country will be deprived of much of the capital needed to advance from subsistence to market-oriented commercial farming.<sup>16</sup> Agricultural credit will continue to only be available to those ventures that have the economies of scale to ensure their sustainability. Smallholder operations and outgrowers will take many years to accumulate the resources to be able to capitalize on the limited financial resources that are now available.

## V. TRADE ANALYSIS

56. To identify likely areas for successful growth and investment, it is important first to consider Zambia's recent export performance and market outlets for the country's main commodities.

### A. Export Performance

57. **Balance of payments.** As defined by the Export Board of Zambia (EBZ), non-traditional exports (NTEs) include all products except copper and cobalt. Zambia's balance of payments situation since 1997 is summarized in Table 1 and shows that base metals still account for about 65% of total merchandise exports compared with about 35% for NTEs.

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<sup>15</sup> PTA Bank, 2001.

<sup>16</sup> The Economist, "Poverty and Property Rights," 31 March 2001.



**Table 1: Zambia's Balance of Payments, 1997-2000 (USD millions)**

	1997	1998	1999	2000*
<b>Trade Balance</b>	<b>54</b>	<b>(153)</b>	<b>(99)</b>	<b>(191)</b>
<b>Exports, fob</b>	<b>1 110</b>	<b>816</b>	<b>759</b>	<b>800</b>
Metal sector	808	520	467	521
Copper	621	365	372	441
Cobalt	185	155	95	80
Non-traditional exports	304	296	288	279
<b>Imports, cif</b>	<b>(1 056)</b>	<b>(971)</b>	<b>(870)</b>	<b>(1 008)</b>
Metal sector	(289)	(221)	(121)	(170)
Fertilizer	(50)	(54)	(2)	(13)
Petroleum	(87)	(42)	(115)	(176)
Maize	(12)	(108)	0	0
Other	(617)	(547)	(632)	(549)
<b>Services Balance</b>	<b>(264)</b>	<b>(179)</b>	<b>(211)</b>	<b>(225)</b>
<b>Current Account Balance</b>	<b>(448)</b>	<b>(573)</b>	<b>(483)</b>	<b>(578)</b>
<b>Capital and Financial Account Balance</b>	<b>25</b>	<b>284</b>	<b>342</b>	<b>129</b>
<b>OVERALL BALANCE</b>	<b>(377)</b>	<b>(403)</b>	<b>(348)</b>	<b>(176)</b>

Source: Bank of Zambia data from MOFED, 2001. Data for 2000 are preliminary.

58. **Non-traditional exports.** Table 2 looks at the broad performance of Zambia's non-traditional export sectors since 1998. Unfortunately, due to inconsistencies between the data supplied by the Bank of Zambia and Export Board, the numbers below do not match exactly with the balance of payments schedule above. Large quantities of agricultural produce are also traded informally in cross-border transactions with neighboring countries. These dealings are not captured by official trade statistics, but are of considerable importance to rural producers in border areas. Despite these limitations, the data below should provide a good overall picture of recent developments in Zambia's NTE sectors. Importantly, these figures show that agriculture is by far the most valuable NTE category accounting for 56% to 60% of total export value. Combined with textiles and garments made of cotton, agriculture and agriculture products broadly defined account for more than 70% of total NTE value.

**Table 2: Non-Traditional Export Performance by Sector (1998-2000)**

	Export Value (USD '000)			Percent of Total NTEs		
	1998	1999	2000	1998	1999	2000
Agriculture	165 090	166 775	131 768	56%	60%	57%
Textiles and garments	42 689	35 520	29 576	14%	13%	13%
Mineral and gemstones	23 744	17 653	22 085	8%	6%	10%
Engineering products	28 055	23 212	18 694	9%	8%	8%
Other exports	37 711	36 794	30 182	13%	13%	13%
<b>TOTAL NTEs</b>	<b>297 289</b>	<b>279 953</b>	<b>232 304</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: EBZ, 2001.

59. Next, Table 3 looks more closely at NTE sector performance and growth rates over the past three years. These data show that total NTE value has declined by 22% since 1998 including a 20% loss of value in agriculture and a 31% decrease in the garment and textile sectors. The only agriculture sector to have recorded positive growth in the period covered is "animal products" consisting of fresh eggs, day old chicks, crocodile meat, dressed chickens, milk, cheese, sausages and other meat products. By comparison, the export value of "primary agricultural products" declined sharply, mainly because of lower world prices for cotton. Sugar and molasses account for 68% of the value for "processed and refined foods" with stockfeed, mealie meal and honey making up the balance of this category. "Horticultural

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products” consist almost entirely of pre-packed specialty vegetables; more than 95% of “floricultural products” are roses. Of all NTE sectors, gemstones and non-metallic minerals have recorded the most impressive growth over the period covered with reasonable performance also in selected manufacturing sectors.

**Table 3: NTE Value and Growth Rates by EBZ Category (1998-2000)**

	Export Value (USD '000)			Growth Rate		
	1998	1999	2000	1998-99	1999-00	1998-00
<b>Processed and Refined Foods</b>	<b>47 843</b>	<b>32 833</b>	<b>35 553</b>	<b>-31%</b>	<b>8%</b>	<b>-26%</b>
<b>Primary Agricultural Products</b>	<b>56 948</b>	<b>61 973</b>	<b>34 989</b>	<b>9%</b>	<b>-44%</b>	<b>-39%</b>
<b>Floricultural Products</b>	<b>32 852</b>	<b>42 607</b>	<b>33 863</b>	<b>30%</b>	<b>-21%</b>	<b>3%</b>
Textiles	42 322	35 191	29 199	-17%	-17%	-31%
<b>Horticultural Products</b>	<b>20 182</b>	<b>23 129</b>	<b>19 965</b>	<b>15%</b>	<b>-14%</b>	<b>-1%</b>
Engineering Products	28 055	23 212	18 694	-17%	-19%	-33%
Gemstones	10 896	13 334	13 711	22%	3%	26%
Mining	12 312	3 337	7 325	-73%	120%	-41%
Building Materials	8 833	7 044	7 106	-20%	1%	-20%
<b>Animal Products</b>	<b>5 840</b>	<b>4 374</b>	<b>6 731</b>	<b>-25%</b>	<b>54%</b>	<b>15%</b>
Chemical Products	6 938	5 942	6 117	-14%	3%	-12%
Scrap Metal	4 208	6 110	5 104	45%	-16%	21%
Other Manufactures	3 916	6 040	4 359	54%	-28%	11%
Re-Exports	4 364	2 685	3 958	-38%	47%	-9%
Wood Products	2 870	2 352	2 978	-18%	27%	4%
Non-Metallic Minerals	536	982	1 049	83%	7%	96%
<b>Leather Products</b>	<b>1 425</b>	<b>1 859</b>	<b>666</b>	<b>30%</b>	<b>-64%</b>	<b>-53%</b>
Petroleum Products	6 420	6 412	439	0%	-93%	-93%
Garments	367	329	377	-10%	15%	3%
Handicrafts	163	208	121	28%	-42%	-26%
<b>TOTAL NTEs</b>	<b>297 289</b>	<b>279 953</b>	<b>232 304</b>	<b>-6%</b>	<b>-17%</b>	<b>-22%</b>
of which Agriculture	165 090	166 775	131 768	1%	-21%	-20%
of which Garments and Textiles	42 689	35 520	29 576	-17%	-17%	-31%
<b>TOTAL BROAD AGRICULTURE</b>	<b>207 779</b>	<b>202 295</b>	<b>161 344</b>	<b>-3%</b>	<b>-20%</b>	<b>-22%</b>

**Note:** Agriculture sectors indicated in bold; “broad agriculture” includes garments and textiles.

**Source:** EBZ, 2001.

60. Detailed export values for agriculture products plus garments and textiles made of cotton are summarized in Table 4. Again, because of the way the EBZ has consolidated these data by category, the total values do not match exactly with the figures shown above, but still provide a reasonable picture of performance in individual agriculture sub-sectors. Bearing this limitation in mind, the data below show that a few main commodities dominate Zambian agriculture exports including horticulture, cotton and textiles, sugar, coffee and tobacco. Performance in other sectors has been erratic, most notably with regard to basic food items including maize, mealie meal and beans due to large swings in production and quantities sold for cash each year. Together, the horticulture, cotton and textiles and industrial crop sub-sectors have accounted for 86% to 91% of Zambia’s total agricultural exports with only a minor contribution from livestock, oilseeds and grains.

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**Table 4: Performance of Agriculture and Cotton Textile NTE Sectors (1998-2000)**

	Export Value (USD '000)			Percent of Total Ag.		
	1998	1999	2000	1998	1999	2000
<b>HORTICULTURE</b>						
Fresh flowers	32 852	42 607	33 863	16%	21%	22%
Fresh vegetables	17 479	20 020	17 541	9%	10%	11%
<b>Sub-total</b>	<b>50 331</b>	<b>62 627</b>	<b>51 404</b>	<b>25%</b>	<b>32%</b>	<b>33%</b>
<b>COTTON AND TEXTILES</b>						
Yarn (of cotton)	40 278	33 618	26 002	20%	17%	17%
Lint	22 759	37 867	9 457	11%	19%	6%
Fuzzy seed	3 674	1 838	1 831	2%	1%	1%
Chitenge material	135	217	220	0%	0%	0%
Cloth (of cotton)	1 220	174	182	1%	0%	0%
<b>Sub-total</b>	<b>68 066</b>	<b>73 714</b>	<b>37 510</b>	<b>34%</b>	<b>37%</b>	<b>24%</b>
<b>INDUSTRIAL CROPS</b>						
Whitespoon sugar	33 220	23 144	22 754	16%	12%	15%
Coffee	8 896	5 084	8 597	4%	3%	6%
Burley tobacco	17 701	13 189	8 538	9%	7%	6%
Paprika	810	2 846	1 806	0%	1%	1%
Beans	171	74	1 076	0%	0%	1%
Molasses	229	29	591	0%	0%	0%
Tea	546	840	464	0%	0%	0%
<b>Sub-total</b>	<b>61 571</b>	<b>45 205</b>	<b>43 826</b>	<b>30%</b>	<b>23%</b>	<b>28%</b>
<b>GRAINS AND CEREALS</b>						
Mealie meal	1 510	764	5 853	1%	0%	4%
White maize	427	1 051	2 802	0%	1%	2%
Wheat flour	1 686	777	294	1%	0%	0%
Maize seed	348	1 022	265	0%	1%	0%
Rice	21	58	70	0%	0%	0%
Wheat	53	..	..	0%	..	..
<b>Sub-total</b>	<b>4 044</b>	<b>3 672</b>	<b>9 283</b>	<b>2%</b>	<b>2%</b>	<b>6%</b>
<b>EDIBLE OIL AND OILSEEDS</b>						
Soybeans	1 367	657	1 595	1%	0%	1%
Groundnuts	802	192	149	0%	0%	0%
Castor beans	..	17	26	..	0%	0%
Cooking oil	1 171	493	..	1%	0%	..
Soya oilcake	..	149	..	..	0%	..
Sunflower	9	8	..	0%	0%	..
Castor oil	..	8	..	..	0%	..
<b>Sub-total</b>	<b>3 349</b>	<b>1 521</b>	<b>1 769</b>	<b>2%</b>	<b>1%</b>	<b>1%</b>
<b>LIVESTOCK PRODUCTS</b>						
Animal hides	1 709	1 284	4 254	1%	1%	3%
Fresh eggs	1 163	1 125	914	1%	1%	1%
Leather products	621	634	476	0%	0%	0%
Day old chicks	295	288	366	0%	0%	0%
Crocodile meat	50	153	244	0%	0%	0%
Fresh milk	129	24	69	0%	0%	0%
Crocodile skins	427	1 051	..	0%	1%	..
Meat	644	29	..	0%	0%	..
<b>Sub-total</b>	<b>5 038</b>	<b>4 587</b>	<b>6 323</b>	<b>2%</b>	<b>2%</b>	<b>4%</b>
<b>OTHER</b>						
Stockfeeds	8 647	3 664	2 826	4%	2%	2%
Marigold meal	620	3 533	1 708	0%	2%	1%
Honey	183	4	203	0%	0%	0%
Flower seed	..	16	2	..	0%	0%
Frozen foods	83	3	1	0%	0%	0%
Mushroom	2	3	..	0%	0%	..
Onion	7	1	..	0%	0%	..
Spices	3	1	..	0%	0%	..
<b>Sub-total</b>	<b>9 545</b>	<b>7 224</b>	<b>4 739</b>	<b>5%</b>	<b>4%</b>	<b>3%</b>
<b>TOTAL (incl. Textiles)</b>	<b>201 945</b>	<b>198 551</b>	<b>154 855</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: EBZ, 2001.

## B. Major Markets

61. **Total trade.** The overall direction of Zambia's external trade by major regional block is summarized below. These data show that South Africa is the most important source of imports whereas the European Union is the destination of most exports. It should also be noted that South Africa only absorbs about 12% of Zambia's total exports, compared with 22% for other regional markets in COMESA. Importantly, much of this intra-Africa trade consists of agricultural products and these data indicate that Zambia has been more successful penetrating neighboring COMESA markets than supposedly more lucrative outlets in South Africa. These figures are based on the total value of formally recorded traditional and non-traditional exports.

**Table 5: Zambia's External Trade Pattern, All Commodities (1998 data)**

	Imports	Exports
COMESA	15%	22%
European Union	28%	53%
South Africa	46%	12%
Other Markets	11%	13%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Source: COMESA, 2000.

62. **Non-traditional exports.** More detailed information on the market destination of Zambia's NTEs is given below including agricultural and non-agricultural products.

**Table 6: NTE Market Value by Country of Destination (1998-2000)**

	Export Value (USD '000)			As % total NTEs		
	1998	1999	2000	1998	1999	2000
<b>SACU</b>						
South Africa	53 115	55 488	51 230	18%	20%	22%
Botswana	5 929	2 025	1 023	2%	1%	0%
Namibia	570	914	504	0%	0%	0%
Swaziland	26	391	31	0%	0%	0%
<b>Sub-total</b>	<b>59 640</b>	<b>58 818</b>	<b>52 788</b>	<b>20%</b>	<b>21%</b>	<b>23%</b>
<b>Other Regional</b>						
DR Congo	38 170	32 686	33 119	13%	12%	14%
Malawi	15 203	9 860	8 014	5%	4%	3%
Zimbabwe	16 307	9 761	7 598	5%	3%	3%
Tanzania	4 057	5 208	4 528	1%	2%	2%
Kenya	1 771	2 745	3 264	1%	1%	1%
Burundi	3 120	2 284	2 348	1%	1%	1%
Rwanda	1 735	2 113	2 062	1%	1%	1%
Uganda	839	5 642	1 570	0%	2%	1%
Angola	563	266	155	0%	0%	0%
Mozambique	59	181	77	0%	0%	0%
<b>Sub-total</b>	<b>81 823</b>	<b>70 743</b>	<b>62 734</b>	<b>28%</b>	<b>25%</b>	<b>27%</b>
<b>Main Overseas Markets</b>						
Netherlands	29 115	38 193	27 771	10%	14%	12%
United Kingdom	32 903	37 386	26 592	11%	13%	11%
Germany	24 233	20 417	17 005	8%	7%	7%
Switzerland	18 312	16 974	10 436	6%	6%	4%
India	20 639	7 993	7 628	7%	3%	3%
United States	4 444	2 589	5 561	1%	1%	2%
Spain	1 909	5 886	1 306	1%	2%	1%
<b>Sub-total</b>	<b>131 555</b>	<b>129 437</b>	<b>96 299</b>	<b>44%</b>	<b>46%</b>	<b>41%</b>
<b>Other International Markets</b>	24 271	20 955	20 483	8%	7%	9%
<b>TOTAL NTEs</b>	<b>297 289</b>	<b>279 953</b>	<b>232 304</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: EBZ, 2001.

63. Unlike Zambia's overall trade pattern, the data above show that South Africa is the single most important destination for non-traditional exports accounting for 22% of total value in 2000. Nevertheless, the data still show that other regional and international markets are of equal if not greater importance. The Democratic Republic of Congo, for example, is of particular importance and imported USD 33 million worth of non-traditional goods in 2000 through formal channels equal to about 14% of total NTE value. Importantly, many other transactions not captured by these data also took place and it is not unreasonable to suppose that the DRC already is, or soon could be, Zambia's largest trade partner. This trade was almost exclusively with Lubumbashi and other mining areas of Katanga Province just across the border from Zambia's Copperbelt.<sup>17</sup> Given that the population of Katanga is about the same as for all of Zambia, the DRC is of obvious and considerable importance, especially given Zambia's competitive position and close proximity to facilitate trade in basic food items including fresh milk and beef. Likewise, for farmers in Eastern Province, trade with Malawi is likely to offer some of the best potential for growth due to physical location. Developed country markets outside Africa account for about 50% of total NTE value.

64. A list of products sold to each of Zambia's main NTE trade partners is given in Table 7 for agriculture, cotton and textiles and other commodities in order of decreasing importance. Although more detailed information on the value of sales by product and market destination was unavailable, the table below gives a good indication of the destination of Zambia's major NTE commodities. Specifically, most regional exports in agriculture are of basic commodities including sugar, mealie meal (when possible), beans and stockfeed as well as tobacco shipped to processors in Malawi and Zimbabwe. The developed country markets outside Africa mainly import fresh horticultural produce, coffee, honey and tea whereas South Africa imports broader range of commodities including paprika and soybeans for processing, stockfeed as well as higher value commodities like crocodile meat and fresh flowers. Other important markets for cotton yarn include Portugal and Belgium not shown below. In interpreting the data below, it should also be kept in mind that the list is not exhaustive and does not capture all areas of trade including informal transactions.

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<sup>17</sup> Trade with the rest of DRC is not normally feasible because of the lack of roads and other infrastructure needed to reach more distant locations. Sugar and other Zambian exports, however, no doubt find their way up country by means of local DRC traders operating in these difficult areas.

**Table 7: Destination of NTEs by Product Type (2000)**

Export Market and 2000 Value (USD '000)	Agriculture Commodities	Cotton and Textiles	Other Products
<b>South Africa</b> 51 230	Coffee (for re-export), soybeans, paprika, crocodile skins, stockfeed, hides and skins, crocodile meat, tobacco, fresh flowers.	Lint, fuzzy seed, yarn.	Copper rods, electrical cables, scrap metal, electricity, gold bars, medicaments, wood products, gemstones, copper wire, silver, ferro-silicon, game trophies, talc powder.
<b>Democratic Republic of Congo</b> 33 119	Sugar, mealie meal, maize, flour, beans, poultry, stockfeed, eggs, tea, day old chicks, fish.	Lint.	Cement, fertilizer, explosives, gasoil, sulphuric acid, hydrated lime, electricity, coal, cosmetics, footwear, detonators.
<b>Netherlands</b> 27 771	Fresh flowers, coffee, tobacco, fresh vegetables.		
<b>United Kingdom</b> 26 592	Fresh vegetables, coffee, fresh flowers, honey, tea.	Yarn, lint.	Scrap copper, gemstones, hides and skins.
<b>Germany</b> 17 005	Coffee, tobacco, fresh flowers	Yarn	Gemstones.
<b>Switzerland</b> 10 436	Tobacco, coffee	Yarn, lint.	Gold bars, gemstones.
<b>Malawi</b> 8 014	Tobacco	Yarn, chitenge cloth.	Cement, cosmetics, hydrated lime, copper wire, electrical cables, pata pata slippers asbestos pipes.
<b>India</b> 7 628			Gemstones
<b>Zimbabwe</b> 7 598	Tobacco, stockfeed, molasses, leather products.	Chitenge cloth, yarn.	Electricity, copper rods, particle board, ferro-silicon, dental products, pata pata slippers, acrylic yarn, cement, hydrated lime, rail sleepers, electrical cable, jute bags, wood products.
<b>United States</b> 5 561	Marigold meal, coffee, paprika, fresh flowers.	Clothing	Gemstones, wood products, game trophies.
<b>Tanzania</b> 4 528	Sugar, eggs.	Chitenge cloth.	Electricity, asbestos pipes, copper rods.
<b>Kenya</b> 3 264	Hides and skins		Copper rods, copper wire.
<b>Burundi</b> 2 348	Sugar		Cement
<b>Rwanda</b> 2 062	Sugar		
<b>Uganda</b> 1 570	Sugar	Lint	Copper rods.
<b>Spain</b> 1 306	Paprika		

Source: EBZ, 2001.

65. **Trade with COMESA.** The 21 members of COMESA together account for around 23% of Zambia's agricultural exports by value.<sup>18</sup> COMESA countries have also been an important market for Zambia's semi-processed goods and manufactured products including cotton yarn. The share of Zambia's total trade with major COMESA markets is summarized below for total imports and exports. These figures show Zambia's most important export markets within COMESA are the DRC, Malawi, Tanzania and Zimbabwe in that order. Most COMESA imports, on the other hand, were from Zimbabwe with only a minor contribution from other member countries.

<sup>18</sup> Giovannucci, et. al. 2001.

**Table 8: Zambia's Trade With COMESA (1998 data)**

	Imports	Exports
Congo, DR	1.2%	27.2%
Malawi	1.5%	26.3%
Tanzania	5.1%	21.0%
Zimbabwe	83.0%	11.5%
Rest of COMESA	9.2%	14.0%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

66. As discussed above, most agricultural exports to neighboring COMESA states are of basic commodities including sugar, mealie meal, beans and stockfeed plus tobacco sent to the auction floors and processors in Zimbabwe and Malawi. Apart from sugar, which is produced as a commercial irrigated crop, Zambia's competitive position as an exporter of these primary commodities can vary greatly from season to season depending on local growing conditions. This is especially true of mealie meal (mainly sold to the DRC) where the opportunity to export depends on many factors including local availability, domestic and foreign price differentials and availability of export permits. On the other hand, Zambia enjoys a strong transport advantage into markets like the DRC and this market is regarded as offering some of the best potential for rapid growth of all foreign outlets. As discussed in Part Two, Zambia has been supplying poultry products to the DRC since 1999 and there are now plans to start delivering fresh milk (which no other regional exporter can deliver because of distance) and to open retail butchery stores for fresh meat.

67. **Trade with SACU.** Total Zambian exports to SACU in 2000 were USD 43.04 million of which just USD 12.59 million consisted of primary agriculture products equal to 29.3% of the total with a further USD 2.04 million of textiles and yarn (4.7% of total trade). To understand Zambia's trade with SACU and help identify possible new markets, an analysis of 2000 exports and total SACU demand for agricultural commodities produced by Zambia was carried out as shown below. A comparison was also made between the value of each imported commodity supplied by Zambia, Zimbabwe and other SADC member states. Although Zimbabwe and all other countries obviously enjoy their own competitive advantages depending on the level of development and infrastructure needed to support a particular commodity sector, these data give some idea of possible areas where Zambia could hope to improve production and capture at least some of the market share from its neighboring producers.

68. While the results below cannot be used to identify optimal business strategies, several important points stand out that are worth noting. First, of the commodities covered, the data in Table 9 show that Zambia only accounted for about 2% of total world imports with the greatest value in the cotton and textile sectors and oilseeds. For most of these commodities, Zambia only supplies a small portion of total market demand and this could suggest an opportunity for expanded trade. In the case of cotton lint, for example, Zambia only accounted for about 25% of total imports from SADC and just 39% of the value from Zimbabwe. Around three-quarters of Zambia's total lint exports each year are to SACU and there is good apparent capacity to absorb any increase in production.

69. Soybeans are Zambia's second most valuable agricultural export to SACU, but the size of this market is very much determined by competition from Zimbabwe, which enjoys lower transportation costs to processing plants in the north of South Africa and Botswana. Although current disruptions to agriculture in Zimbabwe could provide a temporary window for increased production and export trade, Zambia's ability to enter the SACU market is still limited by competition from other international producers. Indeed, much of SACU's total soybean imports were to supply very large processors in port cities on South Africa's southern coast. In this case, Zambia's transport disadvantage to these areas compared with

the cost of sea freight from the USA and Argentina creates a permanent structural barrier to increased trade.

70. Similarly, in terms of unmet market demand some of the greatest opportunities would appear to lie in the production of animal products of which SACU imported around USD 200.7 million in 2000 with almost no contribution from Zambia. In this case, a major barrier to increased trade has to do with disease restrictions on livestock products. Zimbabwe, for example, sold about USD 6.7 million of beef off the bone to South Africa in 2000 since it had (until recently) satisfied all necessary requirements for veterinary controls and inspection. This would appear to suggest that an investment to develop similar capacity in Zambia might pay high dividends in the long run. Nevertheless, other factors also militate against Zambia's ability to successfully enter the South African beef market. Not least of all, is that South Africa mainly demands de-boned hindquarters for industrial processing. Quite simply unlike Zimbabwe, there is little extra capacity in Zambia to absorb any extra forequarters produced if local ranchers geared up to supply the South African market.

71. Clearly, each investor must do their own homework to understand the specific nature of possible new export markets and Zambia's ability to supply the type of product demanded. This must also be balanced by a consideration of relative prices between different market outlets. For example, although Zambia supplied around 1% of SACU's total honey imports suggesting good potential for expansion, exporters have found the UK to be a more profitable outlet and most trade is in that direction.



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**Table 9: SACU Trade Analysis**

	SACU imports of 2000 from (USD'000)				Zambia as % of		
	World	Zambia	Zimbabwe	SADC	World	Zimbabwe	SADC
<b>Cotton and Textiles</b>							
Lint	31 719	7 344	18 924	29 932	23%	39%	25%
Yarn	8 088	1 758	2 699	4 498	22%	65%	39%
Cottonseed	6 070	1 264	4 203	6 054	21%	30%	21%
Other cotton (carded or combed)	958	48	179	254	5%	27%	19%
Seedcotton (not ginned)	84	37	45	82	44%	82%	45%
Cloth	48 244	5	1 923	2 822	0%	0%	0%
<b>Sub-total</b>	<b>95 163</b>	<b>10 456</b>	<b>27 973</b>	<b>43 642</b>	<b>11%</b>	<b>37%</b>	<b>24%</b>
<b>Plants and Flowers</b>							
Fresh roses	917	52	607	681	6%	9%	8%
Other plants and flowers	4 704	-	5	24	0%	0%	0%
<b>Sub-total</b>	<b>5 621</b>	<b>52</b>	<b>612</b>	<b>705</b>	<b>1%</b>	<b>8%</b>	<b>7%</b>
<b>Fruits and Vegetables</b>							
Fresh vegetables	10 209	84	1 202	1 299	1%	7%	6%
Fresh fruit and fruit pulp	9 108	-	787	798	0%	0%	0%
Fruits and veg. preparations	31 979	-	520	2 764	0%	0%	0%
<b>Sub-total</b>	<b>51 296</b>	<b>84</b>	<b>2 509</b>	<b>4 861</b>	<b>0%</b>	<b>3%</b>	<b>2%</b>
<b>Spices</b>							
Of the genus capsicum (paprika)	1 407	359	56	707	26%	641%	51%
Other	10 944	-	-	40	0%	..	0%
<b>Sub-total</b>	<b>12 351</b>	<b>359</b>	<b>56</b>	<b>747</b>	<b>3%</b>	<b>641%</b>	<b>48%</b>
<b>Coffee and Tea</b>							
Arabica coffee	10 901	-	670	822	0%	0%	0%
Robusta coffee	13 129	-	-	-	0%	..	..
Other coffee (processed)	3 659	-	4	28	0%	0%	0%
Tea	16 912	-	5 972	12 396	0%	0%	0%
Tea bags	279	-	-	-	0%	..	..
<b>Sub-total</b>	<b>44 880</b>	<b>-</b>	<b>6 646</b>	<b>13 246</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Grains and Grain Flour</b>							
Maize and maize flour	1 031	470	36	825	46%	1306%	57%
Wheat flour	1 942	108	57	1 312	6%	189%	8%
Other grains, flours, meal	93 994	12	1 796	4 608	0%	1%	0%
Wheat grain	85 748	-	-	-	0%	..	..
Rice and rice flour	137 847	-	-	101	0%	..	0%
<b>Sub-total</b>	<b>320 562</b>	<b>590</b>	<b>1 889</b>	<b>6 846</b>	<b>0%</b>	<b>31%</b>	<b>9%</b>
<b>Edible Oil, Oilseeds, Oilcake</b>							
Soybeans	24 604	2 052	6 768	9 519	8%	30%	22%
Cottonseed	6 070	1 264	4 203	6 054	21%	30%	21%
Soybean cake	67 746	143	1 830	1 975	0%	8%	7%
Sunflower cake	5 499	23	-	23	0%	..	100%
Other oilseeds	98	3	-	3	3%	..	100%
Cottonseed cake	3 894	3	977	1 691	0%	0%	0%
Sunflower	631	-	-	26	0%	..	0%
Other oilcake	231	-	-	125	0%	..	0%
Other edible oil (crude and processed)	100 734	-	-	933	0%	..	0%
Animal fats	6 205	-	-	-	0%	..	..
<b>Sub-total</b>	<b>215 712</b>	<b>3 488</b>	<b>13 778</b>	<b>20 349</b>	<b>2%</b>	<b>25%</b>	<b>17%</b>
<b>Animal products</b>							
Honey	530	6	23	48	1%	26%	13%
Live animals	5 647	-	179	347	0%	0%	0%
Meat and meat products	96 583	-	6 668	6 689	0%	0%	0%
Fish and fish products	31 492	-	7	4 236	0%	0%	0%
Dairy	43 484	-	630	630	0%	0%	0%
<b>Sub-total</b>	<b>177 736</b>	<b>6</b>	<b>7 507</b>	<b>11 950</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>GRAND TOTAL</b>	<b>923 321</b>	<b>15 035</b>	<b>60 970</b>	<b>102 346</b>	<b>2%</b>	<b>25%</b>	<b>15%</b>

Source: SADC Secretariate.

## VI. MULTILATERAL TRADE AGREEMENTS

72. Zambia is a member of several regional and transcontinental trade agreements that can have a significant bearing on agricultural competitiveness and need to be well understood by potential investors wanting to plan a new area of business and trade. Not only do trade agreements help create new opportunities to export, but they also result in increased competition from imports that can hurt local production. In this respect, it is worth reviewing some of the main provisions, opportunities and risks associated with Zambia's main trade agreements.

73. In interpreting this discussion, it should also be kept in mind that non-tariff factors are often of equal if not greater importance to the opportunities for successful agricultural trade. According to the Export Board of Zambia, non-tariff barriers, including sanitary and phytosanitary requirements, affect this sector more than any other area of non-traditional export development.<sup>19</sup> These issues were the subject of a recent analysis on the impact of grades and standards for agricultural products in Zambia and several strategies have already been put forward to address these constraints.<sup>20</sup>

74. On the domestic front, non-tariff barriers also include poorly developed infrastructure as well as high import duties and value added taxation add substantially to the costs of production and further erode Zambia's competitive position. Fuel taxes in particular add greatly to the costs of agricultural production, both with respect to mechanical cultivation on commercial farms and also for transport of smallholder and commercial produce from remote locations to the main urban markets. Private sector operators interviewed for this study also claimed that high electricity and telecommunications costs are major problems establishing new markets and competing with other world producers. Dialogue with government on effective policies that address these problems could go a long way to the enhancement of new trade opportunities in Zambia and represents one possible area where ZAMTIE could play a role in looking at the costs of specific taxes and opportunities to generate revenue through alternative channels.<sup>21</sup>

### A. COMESA Free Trade Agreement

75. The COMESA FTA came into being on 21 October 2000 creating the largest free trade block in Africa. The new Agreement replaced the former Preferential Trade Area (PTA) and is to be replaced itself in 2004 with a new Customs Union. As shown in Table 5, Zambia normally has a trade surplus in the COMESA region with around 22% of exports being sold to the region compared with 15% of imports in 1998, equivalent to USD 179 and 145 million respectively. Given that the blanket tariff reductions of the FTA affect both imports and exports, a recent study for COMESA concludes that Zambian producers should be able to compete effectively against COMESA imports, even under zero tariff rates.<sup>22</sup>

76. At the same time, however, the report also warns that some producers will be uncompetitive in the area of free trade. The COMESA study goes on to identify seven major constraints that can affect Zambia's competitive position under free trade including (i) the domestic tax regime; (ii) inconsistent tax administration; (iii) inconsistent government policy on trade and industrial development; (iv) poor infrastructure; (v) lack of proactive

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<sup>19</sup> EBZ, 2001.

<sup>20</sup> Giovannucci, et. al, 2001.

<sup>21</sup> A good example of this is a recent study by ZAMTIE of cascading tariffs (LaFleur, 2001).

<sup>22</sup> COMESA, 2000. This reports also provides a comprehensive discussion of the impact of the FTA for specific sectors of the Zambian economy.

management at the firm level; (vi) inadequate marketing strategies; and (vii) relatively higher costs of energy and transport. It is worth noting a few of the potential costs and benefits of the FTA in more detail.

77. First, certain sections of the Zambian private sector appear skeptical of the potential benefits and wary of the potential loss of competitiveness. Specifically, it is argued that inconsistencies between the pace of economic liberalization and macroeconomic reform between member countries could expose Zambia to unfair competition from producers in other countries who still enjoy certain production subsidies and price controls. Within COMESA, this issue is of particular concern for Zambia and other member states neighboring Zimbabwe because of the current overvaluation of the Zimbabwe Dollar. Another common perception is that the costs of agricultural production in Zimbabwe are considerably lower than in Zambia, especially for fertilizer, agro-chemicals, electricity and fuel. The true extent of this problem, however, is not entirely clear since farmers in Zimbabwe are obviously struggling with other problems, including the lack of security and high costs of buying foreign exchange to sustain essential operations.

78. It should also be noted that the full potential benefit of the FTA can only be obtained when the COMESA Secretariat and member governments have the capacity to manage the new regulations, including the use of non-tariff barriers to restrict trade. This issue gained prominence in a recent dispute with Zimbabwe over the labeling of long-life milk with the Zimbabwe government insisting that all milk imported from Zambia should be labeled in each of the country's three main languages; in accordance with the WHO international agreement on "Substitute of Mother's Breast Milk" which requires the labeling in local languages. Eventually Zimbabwe provided Zambia a temporary waiver of the requirement to use cartons without the labeling in three languages. The waiver requires Zambia to use stickers, which carry the three languages. To improve the situation, COMESA is working to develop a Trade Court to settle problems such as this, but this has yet to be tested in practice and will still take some time to develop fully.

## **B. SADC Trade Protocol**

79. The SADC Trade Protocol was signed in 1996 and ratified in 2000, with the aim of establishing a SADC free trade area within eight-year and the gradual elimination of non-tariff barriers in the interim period. Under the agreement, South Africa will reduce its tariff structures more rapidly than other SADC countries, except for "sensitive product groups" such as dairy products, wheat, sugar, cotton, fabric and leather footwear where certain quota and other restrictions still apply. South Africa is a member of the Southern Africa Customs Union (SACU), which has a common external tariff, so that the lowering of tariffs in South Africa will affect the other member countries of SACU.

80. An overview of some of the tariff reductions offered by South Africa for selected agriculture commodities produced by Zambia is given below. These data suggest that Zambia could enjoy broad opportunities for enhanced trade as a result of the tariff reductions, especially for cotton lint, cotton textiles, paprika, soybeans, fresh flowers and fresh vegetables, which are already traded with South Africa and will no longer attract duty from 2002. Importantly, duty free access for cotton textiles is still subject to quota restrictions measured by kilos of fabric and numbers of items for garments. Under the MMTZ (Malawi, Mozambique, Tanzania, Zambia) agreement, however, Zambia and other MMTZ countries are able to export single-stage processed goods (e.g. yarn to fabric) whereas other SADC countries are only entitled to duty free access for two-stage processed goods (e.g. yarn to garments). As with all sectors, actual opportunities for trade still depend on Zambia's ability to overcome high transportation costs (especially compared with other producers located closer by and from competition with overseas producers able to use sea freight) and other

non-tariff barriers. Clearly, tariff reductions alone are not sufficient to attract development in a previously unexplored area and the overall impact on Zambian trade, including the relative benefits of selling to SACU compared with other world markets, cannot be predicted from the data below.

**Table 10: South Africa's Tariff Reductions for Selected Agriculture Commodities in SADC**

	HS Code	RSA's MFN Tariff	RSA's Tariff Reduction under SADC Protocol			SACU Imports for year 2000 from (USD '000)		
			2001	2002	2003	World	SADC	Zambia
Cotton lint	52010020	MFN	free	free	free	31 719	29 932	7 344
Cotton textiles	various	MFN	var.	var.	var.	56 332	7 328	1 763
Paprika	09042030	25%	8%	0%	0%	1 407	707	359
Beans, shelled	20055100	4.15c/kg	free	free	free	3 554	144	0
Groundnuts	20081100	0.99c/kg	free	free	free	172	0	0
Soybeans	12010000	0.65c/kg	free	free	free	18 873	8 459	2 052
Natural honey	04090000	24%	8%	free	free	530	6	6
Fresh flowers	06031000	20%	7%	free	free	917	681	52
Fresh veg.	various	20%	7%	free	free	10 209	1 326	84
Maize flour	11022000	MFN	MFN-40%	MFN-60%	MFN-80%	35	0	0
Wheat	10019000	10.5c/kg	MFN-40%	MFN-60%	MFN-80%	81 208	0	0
Boneless beef	02023000	40%	24%	16%	8%	9 452	4 877	0

Source: SADC Secretariat.

81. Trade patterns are dynamic and constantly respond to changing circumstances including production capacity, market demand as well as new tariff structures. On this basis the ITC carried out a detailed analysis taking these factors into account to try and predict some of the main market opportunities in South Africa likely to result from the SADC Trade Protocol.<sup>23</sup> Importantly, with respect to Zambia, this report found only a limited match between Zambia's supply capacity and expected growth in SACU market absorption capacity. Especially in the cotton and textile sector, Zambia's supply capacity is predicted to grow more rapidly than long-run SACU demand. Still, for at least the near term, there is enormous unmet potential for trade with good opportunities for Zambian cotton and textiles, especially as a result of AGOA not factored by the ITC analysis.

### C. African Growth and Opportunity Act

82. The African Growth and Opportunity Act (AGOA) was approved by the US Congress in 2000 to provide duty and quota free access for 1835 products from sub-Saharan Africa. This is in addition to some 4,500 products that already enter the US market at preferential rates of duty under the Generalized System of Preferences (GSP), and products that are duty-free on a Most Favored Nation basis. AGOA also allows eligible sub-Saharan African countries to export textiles and apparel products to the US market on a duty-free and quota-free basis under certain rules and criteria, subject to an overall cap.<sup>24</sup> Only qualifying sub-Saharan African countries are eligible to benefit from AGOA and a visa must be obtained for duty and quota free trade in textiles and apparel; all other tariff reductions are automatic for qualifying countries. Currently, all countries in southern Africa (including Zambia) qualify

<sup>23</sup> ITC, 2001

<sup>24</sup> More complete information on AGOA will be provided in upcoming ZAMTIE workshops and policy notes.

for AGOA benefits except Zimbabwe because of concerns over good governance in that country.

83. At least in theory, the AGOA could be of major benefit to countries like Zambia that previously could not compete in US markets, either because of outright quota restrictions or very high tariffs. The extent of this potential, however, is still limited by competition from other African countries that enjoy the same benefits under the AGOA and by high transportation costs and other non-tariff barriers still maintained by the United States. Especially for basic agricultural commodities, production subsidies in favor of US farmers are likely to make it very difficult for Zambia to compete thereby limiting the scope for new trade. Tight pest controls and lengthy USDA procedures, on the other hand, restrict increased trade of high-value horticultural produce.

84. Bearing these limitations in mind, the most significant benefits for Zambia are expected to be felt in the cotton and textiles sectors. Specifically, the AGOA provides for duty free and quota free access to the US market without limits for apparel made in eligible Sub-Saharan African countries from US fabric, yarn and thread. It also provides for substantial growth of duty free and quota free apparel imports made from fabric produced in beneficiary countries. Apparel imports made with regional (African) fabric and yarn are subject to a cap of 1.5 percent of overall US apparel imports, growing to 3.5 percent of overall imports after eight years. The cap is measured in square meter equivalents and has no dollar value.

85. Furthermore, under a special rule for lesser developed countries, those with a per capita gross national product less than USD 1 500 in 1998 will enjoy duty free access for apparel made from fabric originating anywhere in the world until 30 September 2004. Apparel imported under the Special Rule is counted against the cap. A Presidential proclamation on 2 October 2000 designated Zambia and 27 other countries eligible for the special rule once they have met the additional requirements for the AGOA apparel provisions.

86. Preferential treatment for apparel took effect on 1 October 2000, but beneficiary countries must first establish effective visa systems to prevent illegal transshipment and use of counterfeit documentation, and that they have instituted required enforcement and verification procedures. Special requirements of the visa system and verification procedures were communicated to African governments via US embassies in September 2000 and the Secretary of Commerce is directed to monitor apparel imports on a monthly basis to guard against surges. If increased imports are judged to cause or threaten serious damage to the US apparel industry, the President is to suspend duty free treatment for those articles.

87. Zambian authorities have been working closely with ZAMTIE staff to meet the conditions required for the AGOA visa. As of the time this report is being written, eleven countries have satisfied the US Government's visa requirements. Zambia is expected to join that group within days, as the US Government has approved Zambia's latest submission. Zambia's early moves to take advantage of the new trade provisions could provide a significant competitive edge, especially with regard to the supply of raw materials to well established apparel manufacturers, such as Kenya, Mauritius, and South Africa. Further implications of AGOA for the cotton sector are discussed in Part Three as part of the detailed investment strategy.

## **VII. INVESTMENT PLANNING**

88. Actual business decisions are based on the strategic considerations of individual entrepreneurs. Although market analysis can help identify areas of possible success, it is neither possible nor advisable to prepare detailed market entry and promotion strategies for specific commodity sectors and then to look for entrepreneurs willing to implement these

plans. Rather, ZAMTIE and other trade and investment promotion bodies can much more effectively focus their effort on building awareness of new opportunities and only then perhaps by working on case-by-case basis to help investors plan a strategy that suits their specific needs.

89. With this limitation in mind, it is still useful to review some of the main considerations any potential investor in Zambian agriculture would need to take into account as they plan their own business and investment strategy. These points can also help potential investors interpret the more detailed discussion of specific commodity sectors and opportunities created by new trade protocols that follow in Parts Two and Three of this report.

90. **Technical and commercial assessment.** The first major element of investment planning is to determine the commercial and technical viability of a particular agriculture venture. This investigation and evaluation phase should focus on market opportunities, technology and operation requirements, location, managerial resources and capabilities. Key information required at this stage is set out below. Depending on the commodity to be traded and nature of the proposed investment, more detailed treatment of some areas may be required.

#### **Market opportunities**

- Market size and expected growth rate, potential customers and expected purchases.
- Geographic and demographic characteristics of the market.
- Price performance and expected trends.
- Barriers to entry.
- Sales structure and available distribution channels (direct, agencies, distributors, wholesalers, etc).
- Competitors' size, strengths and weaknesses.

#### **Technical design**

- Description of the farming activities.
- Operational and managerial requirements including staff and skill levels.
- Available expertise, extension services and support.
- Utilization of raw materials, irrigation, heavy equipment and labor.
- Production costing, purchasing and stock and finished goods control.
- List inputs required including irrigation equipment, heavy equipment and vehicles.
- Quotations for any additional equipment to be purchased.
- Other changes to be made, new technologies, skills and training required.
- Compare with competitors, strengths/weaknesses.

#### **Farm lands and environment**

- Examine farm suitability (soil analysis, water availability).
- Reference to title or lease and right to use.
- Environmental conditions and evaluation.
- Premises, fields and other infrastructure on the farm.
- Consider location with regard to market access, labor availability, future expansion needs, potential environmental risks (hail, flooding, drought).
- Supply of services and utilities, infrastructure, road/rail distance from markets.

### **Management**

- Develop management structure and functional responsibilities.
- Identify personnel requirements (numbers and skill level).
- Assess capabilities and capacity of management team.
- Prepare a management information system (accounting and control).
- Assess need for and availability of technical assistance, extension.

### **Financial**

- Establish detailed assumptions to be used in financial projections.
- Include proposed capital structure, other financing, capital costs, and working capital requirements.
- Provide financial cash flow projections based on the assumptions, including income statements, balance sheets, cash flow, flow of funds and ratios.
- Perform appropriate sensitivity analysis based on changes in assumptions (price yield, production costs, theft).
- Evaluation of alternative financing strategies.

91. **Risk assessment.** The second major element of investment planning is to identify the types of risk that will face the venture and ways to minimize that risk.

- Technical risk (design specifications, input supply, productivity).
- Natural resource constraints (crop loss).
- Land tenure and security.
- Competition from other producers (dumping, subsidies).
- Price cycles.
- Inflation and exchange rate risk for imported inputs.
- Credit recovery for outgrower programs.
- Preparation of a viable exit strategy.
- Worth of machinery/infrastructure if employed for another venture.

92. **Benefit assessment.** The third element covers the benefits to be derived from the proposed venture, in terms of job creation, saving jobs, technology and skills transfer, and economic betterment.

- Detail of the financial benefits.
- Serving a market need.
- Job creation, saving.
- Technology and skill transfer.
- Economic advancement.

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## **PART TWO – AGRICULTURE PERFORMANCE AND COMPETITIVENESS**

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1. Having considered some of the broad factors that shape the opportunities for growth and investment in Zambian agriculture, Part Two now looks in more detail at the recent performance and opportunities for a range of commodity sectors.
2. Specifically, the discussion begins by identifying a short list of priority commodities believed to offer the greatest potential for meaningful gains from new trade and investment. The main opportunities, constraints and intervention strategies that could be used to attract new investment and promote accelerated growth in these priority areas are then covered under the detailed investment strategies in Part Three. Because many other commodity sectors also offer good potential for new trade and investment, however, Part Two also looks at the recent developments, main opportunities and constraints for grains, oilseeds, traditional cash crops, livestock products and a limited range of other possible products. This discussion is much more general than the detailed sector analysis given in Part Three, but is still intended to build investor awareness of potential opportunities and factors each entrepreneur must consider in planning their own detailed business strategy.

### **I. PRIORITY AGRICULTURE SECTORS**

#### **A. Strategic Selection Criteria**

3. In selecting the agriculture sectors to be the subject of detailed analysis, a range of factors was taken into account. Specifically, the most important consideration was to identify areas of agriculture where relatively small and discrete interventions by ZAMTIE, other donor projects and sector stakeholders could be expected to have the largest payback in terms of (i) increased export revenue; (ii) improved farmer profitability; and (iii) employment creation from direct production and linkages to other sectors of the Zambian economy. Within this context, priority was given to cash crops with good potential for smallholder production as one route to rural poverty alleviation and improved food security. Although market imperfections still give isolated smallholder farmers good reason to concentrate on subsistence crops for home consumption, one of the most effective ways to address the cycle of rural poverty is to create new opportunities for success with higher-value commodities.
4. These selection criteria are in line with ZAMTIE's strategic niche as a relatively small project. Rather than concentrate on a very broad range of commodity sectors where great effort might only result in small improvements, the approach adopted here has been to identify areas where ZAMTIE and other donor projects could leverage their resources for maximum impact. These criteria are also in line with GRZ's Draft Agricultural Policy which states that the overall objective is "to facilitate and support the development of a sustainable and competitive agriculture sector that assures food security at the national and household levels and maximizes the sector's contribution to gross domestic product."<sup>25</sup> Clearly some sectors offer more potential for rapid gains than others and an approach that targets these areas is likely to make much more effective use of scarce public and private resources.
5. As stressed in the introduction, this approach is not to deny the importance of other commodity sectors, which can also offer good potential for viable business opportunities.

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<sup>25</sup> Republic of Zambia, 2001, p. 3.



Clearly, programs that target these areas are also important to the overall diversification of Zambian agriculture and should also be encouraged. Broad opportunities in these areas are discussed below.

### **B. Identification of Priority Commodities**

6. On the basis of these criteria, the four priority sectors selected for detailed analysis are cotton, coffee, paprika and horticulture (consisting of floriculture and vegetables for both export and domestic consumption). Together these commodities now account for about 64% of Zambia's total agricultural export earnings equal to USD 99.1 million in 2000. Only a relatively small increase in the total output of any one of these sectors, therefore, could make a substantial contribution to Zambia's total export revenue and balance of payments situation. In terms of a national strategy for agricultural development, investments in these areas are likely to provide far greater returns than the opening of new and yet untested areas of trade. Again, many other opportunities exist for successful business, but probably not on the scale of a dramatic improvement in gross national product and balance of payments, at least in the near future.

7. Importantly, these four priority sectors also offer some of the best opportunities for high farmer income and market growth. Previous studies of the financial returns to Zambian agriculture in fact show that cotton, coffee, paprika and horticulture are among the most profitable crops well suited to production in Zambia with excellent returns to capital.<sup>26</sup> Of these enterprises, cotton and paprika are the most widely grown by smallholder farmers, but coffee also offers good potential and can be an extremely lucrative enterprise with only limited management input.<sup>27</sup> To this point, export horticulture has been the almost exclusive domain of commercial farmers due to very exacting management requirements. With the right kind of support, however, good potential exists for smallholder production of export vegetables and there is also room to improve the efficiency of domestic vegetable markets where smallholder farmers have a much larger stake. Importantly, crops consumed on the local market are generally much easier to grow, but still require many of the same skills so that long-term efforts to develop the distribution channels and markets for these products could help build a platform for much broader smallholder export production.

8. From the social point of view, another advantage of the four commodity sectors selected for detailed analysis is that each crop tends to be very labor intensive. In other words, an effort to attract new investment and improve the overall performance of these sectors could likely result in a large number of new jobs, both for on-farm tasks and in downstream processing. Cotton offers good linkage potential to the textile and garment manufacturing industries; coffee and paprika both create a large number of seasonal jobs for rural labor; and horticulture is one of the most labor intensive of all agricultural enterprises creating more than 30 full time jobs per hectare in the rose sector. On the other hand, it should also be noted that crops with a large labor requirement are not always attractive from the individual investor's point of view. For commercial farmers, crops that demand a large labor input can be risky because of the increased management burden and possible problems recruiting enough workers for important seasonal tasks. For smallholder farmers, the shortage of active labor is one of the most important barriers to increased agricultural production.<sup>28</sup> Although this may mean some small-scale farmers could prefer easier to grow crops than the

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<sup>26</sup> World Bank, 1996; INESOR, 1999.

<sup>27</sup> Keyser, 1997 and 2001.

<sup>28</sup> INESOR, 1998.

priority commodities identified here, cotton, paprika, coffee and vegetables all provide excellent returns to labor and can still be highly rewarding even on a limited scale.<sup>29</sup>

9. Other commodity sectors including **sugar** and **tobacco** also go a long way toward meeting the strategic selection criteria for priority commodities with good potential for high export earnings, employment creation and protection from variability in price and yield. Sugar, however, is restricted by the need to be grown in close proximity to a processing plant and has so far been dominated by the Zambia Sugar Company with only limited production by commercial and smallholder farmers on an outgrower basis. Recently, however, a new estate began production in Northern Province indicating that there may be room for further expansion. Nevertheless, the high cost of establishing a processing plant with sufficient cane production to sustain its operations obviously restricts the opportunities for broad participation. With respect to tobacco, USAID regulations prevent ZAMTIE from providing direct support to this sector and tobacco is only covered in a general sense under the discussion of opportunities below.

## II. OPPORTUNITIES AND CONSTRAINTS IN OTHER SECTORS

10. Apart from the priority commodity sectors, many other areas of Zambian agriculture also offer good potential for growth and investment. As stressed, however, the right approach for investing in any commodity sector depends on the individual objectives, skills, resources and experience of each entrepreneur and it would not be appropriate to try and map out specific investment strategies for these areas. In this respect, the main objective of the following discussion is to highlight certain market possibilities that may offer potential as well as the constraints any investor would have to consider in planning a successful business strategy.

11. Although opportunities exist for profitable trade in many commodity sectors, problems with limited production capacities, low value to weight ratios, and disease control all restrict the potential to attract new investment and achieve broad economic growth in most areas. Certainly individual entrepreneurs can make good money trading castor beans, organic honey or sun-dried tomatoes, for example, but even very dramatic growth in these areas is still unlikely to substitute for only a small improvement in priority sectors like cotton, coffee, paprika and horticulture. The development of new areas of trade is clearly important to Zambia's process of agricultural diversification, but this cannot substitute for more fundamental improvements in already established areas.

12. It should also be stressed that private entrepreneurs can sometimes do grave damage to Zambia's reputation as a supplier of possible niche products by trying to develop a sector only to fail either because they cannot amass the quantities needed or meet the quality standards promised to international buyers. There is also a risk that some products may be little more than a fad or passing fancy of certain investors when what Zambia really needs is a solid, stable foundation for long-term agriculture sector growth. Quite simply, if an international buyer has agreed to buy a certain amount of sun-dried tomatoes, honey, mushrooms, lemon grass or any other product only to be told that the product does not exist when it is time to deliver, then that buyer will understandably be reluctant to do business with Zambia again. Likewise, if an investor loses interest in a sector after only a few seasons, farmers can easily be stranded without a market outlet for their supposedly high-value, yet now worthless crop.

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<sup>29</sup> World Bank, 1996; INESOR, 1999.

13. Importantly, these notes of caution are not to say that Zambia should neglect other crop sectors and new trade possibilities. Certainly new areas of investment should continue to be explored. Paprika, for example, developed fairly quickly and was first introduced to Zambia only about 10 years ago and is now the country's ninth most important agricultural export measured by gross foreign exchange revenue. Development of this sector, however, has only been possible because of the investment decisions made by a few entrepreneurs who identified a specific market potential and then went about making long-term investments to develop the production base needed to sustain their operations. This has required substantial investments in farmer extension, input supply, marketing support, laboratory equipment, processing facilities, construction of rural depots and negotiation with potential buyers around the world. Opportunities for similar growth in other areas certainly exist, but success still depends on individual entrepreneurs who are willing to respond to market signals and accept the risk and high cost of investing in new areas.

14. Similarly, many opportunities also exist for enhanced trade in the more established bulk commodity sectors including grains and oilseeds. These sectors are already an important part of Zambian agriculture, but have generally been constrained by problems of low farm profitability, volatile production, high transportation costs and risk of government interference and insecure business transactions. Although much can be done in Zambia to improve these systems that would have important food security implications for individual producers and urban consumers alike, it seems that Zambia's greatest advantage in these sectors may be to focus on domestic self-sufficiency.

### A. Grains

15. These are the staple foods, essential for food security on a national basis, but also essential for individual households, particularly those in the rural areas. These areas are usually isolated, with major transport disadvantages with regard to both the disposal of surplus production at the beginning of the season and the purchase of supplies later when local stocks have been depleted. Yields vary widely according to rainfall and as a result of both the small farmer's inability to afford essential inputs and, frequently, their lack of familiarity with modern production methods. Grain crops also have a low value to weight ratio and are little able to warrant the high transport costs involved in trade between countries.

16. SADC countries are justifiably concerned with the need to ensure food security and, in the past, this has required large strategic reserves being rolled over between production seasons. Importantly, the cost of hedging future transactions through regional commodity exchanges (including the South African Futures Exchange, SAFEX), would likely be much lower than holding large quantities of cereals in storage, and Zambia could do well to investigate how these exchanges could best be used (perhaps on a SADC wide basis) as an instrument of food security policy. It should also be noted that many transactions in southern Africa have failed, due to lack of integrity on the part of either or both parties involved. This has led to a climate of mistrust of commodity deals with Zambia and resulted in poorer terms being offered to farmers and traders than might otherwise be possible. An improved legal system with guarantees against default and political manipulation could go a long way to improve investor confidence and enhanced sector performance. An improved institutional base, including further development of the Zambian Agricultural Commodity Exchange (ZACE) and new system of warehouse receipts under ZACE is also important for long-term development in the bulk commodity sectors.

17. **Maize.** As the basic staple food, maize is without doubt Zambia's lead agricultural activity with more area given to this crop than any other. Since economic liberalization and the removal of price controls and production subsidies, however, this situation is gradually beginning to change with farmers (especially in outlying areas) giving increased priority to

higher value cash crops while concentrating on cheaper to grow and more drought tolerant staples for on farm consumption like cassava, sweet potato, and sorghum.<sup>30</sup>

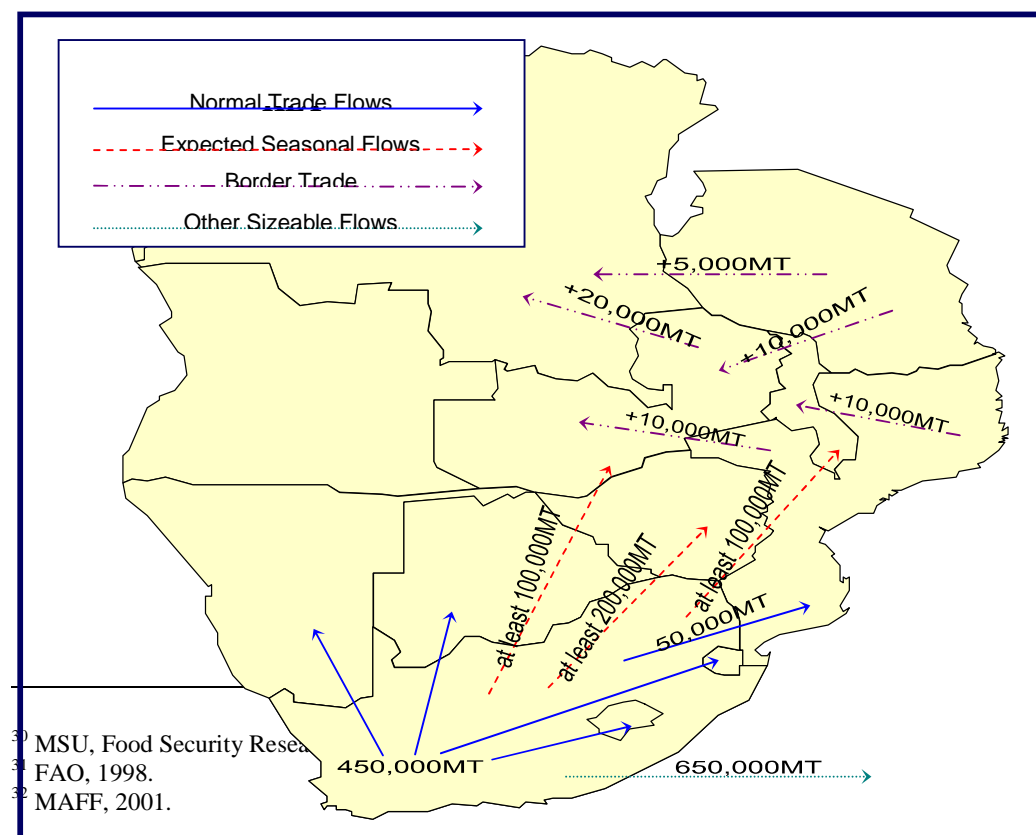
18. Although maize is still the most important food security crop, a number of factors together militate against the opportunities for new trade and investment. These include:

- Large annual variation in total production and sales;
- Low value to weight ratios that restrict the opportunities for long distance transactions;
- Risk of interference in the form of politically motivated imports at below market prices and/or export restrictions; and
- Lack of bulk handling facilities.

19. With respect to the first constraint, large variations in production and sales mean that Zambia's maize traders and milling companies must constantly monitor local conditions and those throughout the region to anticipate and respond to local surpluses and shortages as they become apparent.<sup>31</sup> Although this means good profit margins are sometimes available for certain business transactions, maize trade is one of the most competitive industries in southern Africa so that any advantage is often short lived. Total production in Zambia since the mid-1990s has ranged from 15.6 million 90kg bags in 1996 (1.4 million tons) to just 7.1 million 90kg bags (0.64 million tons) in 1997. Total domestic consumption for all uses is estimated to be around 1.2 million tons and Zambia has only been in surplus two times since 1995. Of Zambia's total maize crop only about 30% is sold for cash with the balance retained for on-farm consumption.<sup>32</sup>

20. A projection of regional maize transactions for 2001 is given in the figure below, which

**Figure 1: Expected Regional Trade Flows for Maize, 2001-2002**



Source: MSU, 2001

illustrates both the complexity of maize flows and fact that most transactions are with neighboring countries on the basis of local surpluses and shortages. A good example is northern Mozambique, where surplus maize is exported mainly to Malawi and Zambia, its natural markets. That part of Mozambique has not suffered from the drought conditions that prevailed in other countries during 1992 and 1995, and can be considered a substantial and consistent source of maize for Mozambique itself, and neighboring countries, including Zimbabwe. Another example is the Southern Highlands in Tanzania, which usually produces maize whose natural markets would be Malawi, Zambia and DRC. Such localized cross-border markets should be further encouraged to function and expand.<sup>33</sup>

21. For exports from South Africa to Zimbabwe, Malawi and Zambia, there seems to exist a serious transport constraint. It is estimated that a maximum of 50 000mt of maize can pass through from South Africa to these countries per month including 20 000mt by road and 30 000mt by rail. If Zimbabwe, Malawi and Zambia have a combined import requirement of 400 000mt for the current season, this will have to be transported between September 2001 and April 2002; a period of eight months. When import arrangements are delayed, fewer imports can physically be moved until the end of the marketing season. If indeed more than 400 000mt of imports are to be moved to these three countries, completion of these consignments may fall into the next marketing season. Possible solutions to ameliorate this transport bottleneck include stock swaps, i.e. using stocks from northern Zimbabwe to supply Zambia, while Zambia replenishes these stock in southern Zimbabwe with South African maize.<sup>34</sup>

22. Low value to weight ratios also restrict the opportunities for maize trade. Except in years of a major deficit throughout the entire region (in which case Zambia is also likely to be severely affected), most transactions are with neighboring countries, including informal cross-border trade. Only about USD 1.5 to 3.0 million of white maize and mealie meal are normally exported from Zambia each year through official channels and most of this is normally sold to Katanga Province in the DRC where Zambia's close proximity provides an advantage over other producers in terms of savings on transport costs. South Africa, on the other hand, has been in surplus eight of the past ten years and cannot be considered a potential market for Zambian maize.

23. The uncertain nature of business transactions, including the possible risk of export bans and price manipulation for maize and other strategic commodities, is another important constraint to enhanced performance. Specifically, large trading companies in South Africa said they currently have no real interest to do business with Zambia (or other southern Africa countries) until they can be certain the commodities they buy actually exist and are available to ship wherever a shortage exists. They noted that several trading houses have lost large sums of money doing business with Zambia in the past, either because the commodities they bought on forward contract turned out not to exist or because of export restrictions and price interference by government. Furthermore, given that the cost of ocean freight from other world growers can actually cost less than road transport from Zambia, there is a strong preference to buy grain from outside the region when necessary. On the other hand, these traders were aware of recent efforts to establish a system of **warehouse receipts** in Zambia, which they said is a very definite step in the right direction and could eventually provide the type of security they need to have an interest in commodity trade with Zambia.<sup>35</sup>

24. Furthermore, these traders noted that Zambia does not have any bulk handling facilities so that all maize must be shipped in bags, which adds considerably to the total cost.

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<sup>33</sup> MSU, 2001.

<sup>34</sup> MSU, 2001

<sup>35</sup> This system is being designed and implemented with support from ZATAC.

25. **Wheat.** Large-scale commercial farmers grow virtually all of the wheat produced in Zambia as an irrigated winter crop. Total production in recent years has varied from about 55 000 to 70 000 tons from an area of around 10 000 hectares.<sup>36</sup> Zambia is a net importer of wheat, but sometimes also exports small quantities (both as grain and milled flour) to other regional markets. Very little wheat is traded with South Africa, because of very high overland transportation costs from Zambia compared with sea freight from other countries, including the USA. Total consumption requirements in Zambia are around 150 thousand tons annually, but this has been growing recently because of increased urban demand.

26. Recently, wheat growers in Zambia have suffered considerably from competition with Zimbabwe. It has even been reported that Zimbabwean traders have been able to land milled flour in Lusaka for less than the cost of local production. This is largely a result of current economic distortions in Zimbabwe whereby it is possible to sell wheat and other export crops for a very low price then convert these earnings to ZWD at the parallel exchange rate. In this respect, there has been some recent debate over the efficiency of growing wheat in Zambia since high irrigation costs make domestic production expensive compared with other world producers. The ZNFU in fact reports that the number of individual wheat farmers has fallen by over 70% in the last three years as millers continue to prefer cheaper wheat from abroad.<sup>37</sup> Apart from the current distorted situation in Zimbabwe, however, economic analysis suggests that the long-run costs of local production are still lower than import parity after transportation and handling costs are taken into account.<sup>38</sup>

27. As with maize, wheat imports from SADC into SACU are subject to reduced tariffs in the form of increased rebates of MFN tariffs. This improvement in competitive conditions for SACU, however, is only periodic, depending on whether the MFN tariffs are in force, and in any event, do not fully compensate for transport disadvantages. Zambia's wheat output is more predictable than maize, since it is grown under irrigation, but for this reason it is also much more expensive to produce. On this basis, it seems that strategic investment in wheat should be encouraged only up to levels that help ensure import substitution, but not beyond that since surplus disposal will continue to be of speculative profitability.

28. **Sorghum.** White sorghum is the preferred smallholder crop and is normally pounded into flour for use as staple food. Grain eating birds are the main problem growing white sorghum and a significant share of total labor is spent on bird scaring and trapping, which is normally done by children. For this reason, commercial farmers find that white sorghum is almost impossible to manage and prefer to grow red sorghum, which is bitter and distasteful to birds. Red sorghum is mainly used for beer brewing and must be polished to remove the hard seed coat before eating. This results in a weight loss that renders red sorghum less valuable than white sorghum when used as food.

29. There is a small but potentially lucrative export market for both red and white sorghum in Botswana with total SACU imports of 2000 equivalent to USD 612 000. Of this value, Zimbabwe accounted for the entire SADC share of USD 10 000 and most imports were from the USA.<sup>39</sup> Despite low value to weight ratios, Zambia should enjoy a transport advantage into Botswana compared with the USA, but must first be able to guarantee the consistency of supply needed to attract the interest of these buyers. Last year, Zambia's total sorghum

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<sup>36</sup> MAFF, 2001.

<sup>37</sup> ZNFU, 2001.

<sup>38</sup> World Bank, 1996; INESOR,, 1999; Keyser 2001.

<sup>39</sup> SACU Secretariat.

output was around 25 500 tons, of which just 4 055 tons were sold for cash.<sup>40</sup> In 1999 Zambia exported 68 tons of sorghum with a value of USD 15 000 (USD 220.00 per ton).<sup>41</sup>

30. **Millet.** Finger millet is typically grown in the north of Zambia as the first (and sometimes second) crop in the *chitemene*, or slash and burn system of rotation farming. Alternative “conventional” methods of growing millet are also practiced, but weed competition is a significant management problem. The major grass weed in Zambia is *Eleusine indica*, a close relative of millet, which is indistinguishable prior to flowering and against which selective weed killers cannot be applied. Therefore, any great expansion of millet production is likely to depend on developing cultivation methods that suppress *E. indica* in the season(s) before millet is planted. The most promising of these methods involves green manuring with long-season sunhemp in the previous seasons. This system is presently unknown to most millet growers. Traditional strains of finger millet have excellent malting qualities and their main use is the manufacture of a traditional alcoholic beverage called *katata*. Although some new selections have been made under a SADC breeding program, the recommended high-yielding “lima” variety has poor malting quality and is grown only by farmers planning to pound the grain into meal.<sup>42</sup>

31. There are some possibilities of finger millet being marketed as an organic health food in Europe and traditional varieties are commonly sold to Tanzania in informal cross-border trade. Importantly, finger millet has a very good cash value and typically sells at the farmgate for a price more than double that received for maize. In 2000 SACU imported just USD 155 000 of millet, none of which came from SADC member states.<sup>43</sup> Zambia’s total production was around 70 000mt. Just 18% of this was reported as having been sold for cash although the true figure is likely to be much greater when the value of cross-border trade and *katata* sales are taken into account.<sup>44</sup>

32. **Rice.** Most Zambian rice is grown under natural flood conditions rather than in paddies. In particular, the flood plains near Kasama, the Bangweulu swamps and Zambezi flood plain in Western Province are all well suited to rice production. Because all of these areas are very remote, however, an important problem is that rice farmers generally face high input prices and correspondingly low output prices. Nearly all rice production in Zambia has been initiated under donor-driven development projects. Combined with previous price controls, this has resulted in a very uncompetitive industry that has long been on the verge of collapse.

33. A major problem in the marketing of most Zambian rice is the poor quality of grain. This is mainly the result of a failure to use pure seed of a single variety. Because four or five seed varieties have typically become mixed on many farms, it is virtually impossible to adjust the huskers to clean the paddy rice and also avoid breaking individual grains. Furthermore, many of the huskers themselves have been poorly managed by cooperatives, which have generally failed to maintain the machines to a proper standard. At present it is extremely difficult for Zambia to compete with imports from either Malawi or the Far East, which both produce a higher quality grain and can land rice in Zambia for roughly the same price as the cost of local production.<sup>45</sup> SACU imports of rice and rice flour are substantial at around USD 138 million for all products (including pre-cooked “minute rice”) but more than 99% of this was imported from outside the SADC region.

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<sup>40</sup> MAFF, 2001.

<sup>41</sup> FAO Stat, 2001.

<sup>42</sup> World Bank, 1996.

<sup>43</sup> SADC Secretariat.

<sup>44</sup> MAFF, 2001.

<sup>45</sup> World Bank, 1996; INESOR, 1999. Both reports found that Zambia does not enjoy a comparative advantage in rice (i.e. a Domestic Resource Cost Ratio > 1).

## B. Oilseeds

34. The production of oilseeds is an obvious focus for growth since, in a normal year, Zambia imports more than 70% of its edible oil requirement, but could become self-sufficient in this commodity. More specifically, total domestic requirement for edible oil is estimated around 20 000mt per year. This would be equivalent to a total soybean crop of 140 000 to 150 000mt whereas total domestic production is currently less than 30 000 metric tons.<sup>46</sup> Other important domestic oilseeds include sunflower seed and cottonseed. Groundnuts are not usually processed into oil and are either consumed directly or sold as a confectionery product. Most edible oil imports are in the form of crude oil refined locally. It is estimated that Zambia's annual per capita consumption of edible oil is around six liters compared with an annual average of seven liters per person for the entire SADC region.<sup>47</sup>

35. Despite the apparent potential for expansion, there are a number of important constraints to increased production. Chief among these are limited rural processing capacity and lack of liquidity in the commercial processing sector. In the first case, processing in rural areas is limited to a small number of hand operated ram and screw presses of limited capacity (about 10 liters per day) and a very few mechanical expellers in some district towns. Total capacity of all these units is no more than about 5 000 tons of oil per year. This limited capacity has meant that most of the rural population cannot realize the immediate benefits of an oilseed crop through on-site processing. Instead, the crop must be transported to the urban processing units where the problems of liquidity and management restrict uptake and prevent a profitable price being paid to the grower.

36. **Soybeans.** More than 80% of the soybean crop is produced by the commercial farm sector. Smallholder farmers grew very little soya until the introduction of the naturally nodulating varieties "Hernon 147" and Magoye varieties in 1981. This removed the constraint of needing to keep the rhizobial inoculum at temperatures below 5°C before sowing, which was beyond the capacity of most small-scale farmers. More recently a liquid inoculums from South Africa has become available which does not require cool storage and can tolerate temperatures of up to 40 degrees Celsius. This led to the more recent popularity of varieties, such as Solitaire, Soprono, and Somo. Smallholder production peaked in the early 1990s, but has since been on the decline due to low prices and the elimination of input support previously provided by LINTCO.

37. As an export crop, soybeans offer good potential for regional trade with South Africa and Botswana, which require more than 150 000mt of imported soybeans annually. The extent of these markets, however, is determined by international prices and competition with Zimbabwe, which is much closer to these export destinations and so enjoys lower transportation costs. Zambian soybeans also have to compete with low price soybean products from South America so that the most viable export markets are generally restricted to inland processors. Domestic marketing outlets for soybeans include use of the crop as (i) a high protein cake for stockfeed; (ii) a high energy feed for livestock; (iii) a source of protein in corn-soya-blends; (iv) a meat extender; and (v) a direct human food. In this context, the fortunes of soybean production are very much linked with the performance of the livestock sector and consumer demand for meat.

38. In 2000, SACU imported a total of USD 18.9 million worth of soybeans worldwide including USD 8.5 million (45%) from SADC. Of this total, Zambia supplied roughly USD 2.1 million compared with USD 5.9 million from Zimbabwe.<sup>48</sup> Because of current disruptions to commercial farming in Zimbabwe, therefore, there may also be a good

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<sup>46</sup> ZNFU, 2001; MAFF, 2001.

<sup>47</sup> INESOR, 1999.

<sup>48</sup> SADC Secretariat.



opportunity for increased export trade to satisfy SACU demand. The long-term structural nature of this opportunity, however, is still limited by higher transportation costs compared with Zimbabwe and by competition from other world producers. Any attempt to capture a larger market share over the long run is likely to depend on first building Zambia's own production base and domestic market outlets.

39. **Sunflower.** Unlike soybeans, sunflower is predominately a smallholder crop with commercial farmers accounting for less than 1% of total production. Sunflower is not fastidious as to soil requirements and is an efficient user of soil nutrients. The crop will produce some yield even under the harshest conditions and is noted for its drought resistant characteristics during vegetable growth. Despite these advantages, sunflower yields are low, with most small farmers achieving less than half a ton per hectare. Sunflower is generally planted after food crops such as maize and groundnuts, which are grown on more fertile soils, weeded thoroughly and fertilized first when possible. The potential for improved yield is therefore considerable.

40. Although sunflower is not widely cultivated, the crop is in good demand locally and there is ample reason to believe that domestic markets could absorb any increased production. In large part this is because sunflower has roughly twice the oil content compared to soybeans, so that processing companies are able to earn an acceptable margin on the oil alone and do not have to worry about selling the cake. On this basis, many domestic oil processors, including the operators of mechanical expellers in particular, have expressed a strong preference for sunflower compared with soybeans and usually report that the main problem is finding enough supplies of sunflower to last throughout the year.<sup>49</sup> This was especially so a few years ago when the country's overall economic downturn led to a sharp reduction in the demand for most livestock products and, by consequence, lower demand for stockfeed.

41. Internationally, SACU imported USD 631 000 of sunflower seed in 2000, of which USD 26 000 was from Malawi as the only SADC trade partner. Compared with soybeans, therefore, the total market size is much smaller at only about 3% of the total for soybeans. On this basis, it would seem an overall oilseed strategy for Zambia might do well to focus on increased sunflower production to supply domestic oil needs with a focus on increased soybean production in line with export opportunities and local demand for cake.

42. **Cottonseed.** As a bi-product of cotton, cottonseed is another valuable source of domestic cooking oil. With a ginning outturn of 40% lint, Zambia's total projected crop in the current season of 75 000 tons of seed cotton should give about 45 000 tons of cottonseed for processing, equivalent to almost 6 000 tons of crude oil at an extraction rate of 13% and 39 000 tons of cake. Last year, SACU imported USD 6.07 million of cottonseed, including USD 1.26 million from Zambia and USD 4.21 million from Zimbabwe. Detailed strategy options for improving the performance of the cotton sector are discussed in Part Three.

### C. Traditional Cash Crops

43. Low yields and poor quality standards have been common problems with many of Zambia's traditional cash crops. This situation has mainly resulted from the use of poor quality home-saved seeds, late planting and inadequate fertilizer use. Consequently, Zambia has lacked both the quantities and consistency of quality needed to develop and maintain viable export markets for most traditional cash crops. These problems do not apply to commercial production of sugar cane where very low field and factory costs by world standards have allowed Zambia to successfully penetrate both regional and European export markets.

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<sup>49</sup> CLUSA, 1998; Craig, 2000.

44. **Groundnuts.** Groundnuts are a crop of major importance in most parts of the country and are mainly grown by traditional farmers for home consumption with small surpluses sold on the local market. Although insignificant quantities are currently used for oil extraction, groundnuts are one of the most important sources of protein in many Zambian diets. At the household level, the crop is traditionally woman's domain with production both for household consumption and to provide small cash income. Only in Eastern Province are groundnuts grown primarily as a cash crop where the traditional *chalimbana* and new MG4 varieties are sold both locally and for export as a confectionery nut. As part of the USAID-supported Eastern Province Natural Resource Management Program, CLUSA is now also working with community-based cooperatives to make peanut butter for sale to Lusaka and possible export.

45. Despite CLUSA's recent intervention, the marketing of groundnuts is not well organized. Unlike other cash crops, no formal outgrower support is provided and farmers usually only sell small quantities to raise cash for household expenses as needed. Transaction costs, therefore tend to be very high with frequent problems amassing the quantities needed to attract international buyers. Previously, Eastern Province enjoyed a good reputation as an exporter of *chalimbana* nuts with substantial quantities sold each year to Europe. Problems with discontinuous supply, genetic drift and poor quality control (especially with regard to aflatoxin), however, all led to the collapse of this market and still tarnish Zambia's reputation today. More recently, the trend among confectionery buyers has been to prefer US runner-type nuts, which are smaller and more uniform in size than the traditional *chalimbana* nut. Accordingly, the re-emergence of groundnuts as a cash crop of major importance is likely to depend on the promotion of new seeds like MG4 and various NGOs (including CLUSA) are already working in this direction with long-term potential to build new export markets.

46. **Dry beans.** Mixed dry beans are of major importance to many smallholder farmers throughout the country both for food and cash sales. Northern Province in particular is regarded as one of Zambia's best bean growing areas and is an important source of supply for urban consumers in Lusaka and the Copperbelt. For the most part, however, farmers produce beans on a very small scale and cultivate less than a quarter hectare, mainly for home consumption. In this respect, most growers only sell about 15 to 30kg of beans each year for cash with the implication that it can be quite timely and expensive for traders to acquire sufficient quantities to justify trading in this commodity. To cope with this situation, some buyers have contracted local businessmen to work at the village level buying beans on their behalf. Then once these agents have collected a load of 5 to 10mt, transportation is sent for collection. These agents are usually paid a commission for the bean they buy and given operating capital on loan from the trading house.<sup>50</sup> Some discussions have been held in the past with Heinz and other regional companies on the possibility of buying Zambian beans for canning.

47. **Tobacco.** The Zambian climate is well suited to the production of flue-cured Virginia tobacco and air-cured burley tobacco. Total export value has been in excess of USD 11 million recently despite a period of low world prices with about 6 000 hectares of burley and 1 900 hectares of flue-cured being cultivated in recent years for a total output around 6.4 million and 2.1 million kilos of both varieties respectively.<sup>51</sup> Despite recent pressure on world tobacco markets by anti-smoking groups and international health campaigns, world demand remains strong, particularly for the flue-cured tobacco grown by Zambia's commercial farmers. By comparison, Zimbabwe produced a crop of 236.9 million kilos of

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<sup>50</sup> DFID, 1999.

<sup>51</sup> MAFF, 2001. EBZ data do not report sales of flue-cured tobacco and the estimate of total export revenue is based on an average price around USD 1.67 per kg (less transport) that prevailed on the Harare auction during the 2000 marketing season.

flue-cured tobacco in 2000 and there is clearly plenty of room to absorb any additional Zambian product.

48. Due to easier curing requirements, burley tobacco is the preferred smallholder variety and production of this crop is centered almost entirely in Eastern Province where growing conditions are well suited to this enterprise. Flue-cured tobacco requires a much higher level of expertise and a large initial investment in expensive curing barns and so is mainly a commercial crop with most production centered along the line of rail in Southern Province. Recently, however, the notion that flue-cured tobacco is not suited to smallholder production is being contradicted by successful outgrower programs in the Great Lakes Region (Kenya, Uganda, and northeastern Congo) and Mozambique. Likewise, smallholder farmers in Zimbabwe (communal, resettlement and cooperative growers), planted more than 7 600 hectares of flue-cured tobacco in 2000 with a total yield around 5.4 million kilos with an approximate export value of USD 9 million.<sup>52</sup> Apart from the potential for very high export earnings, quantitative analysis of the returns to Zambian agriculture also show that tobacco is one of the most profitable crops suited to smallholder and commercial production. Tobacco can provide excellent returns to both capital and labor with more earning potential per hectare than almost any other farm enterprise.<sup>53</sup>

49. For these reasons, tobacco is clearly of major strategic importance to Zambia and should be accorded high priority in national development planning. Despite international pressure on the crop, the market prospects for tobacco are still good for the foreseeable future and any major increase in Zambia would still be insignificant on the global scale. Rather than neglect tobacco because of fears for public health, therefore, this crop could be uniquely positioned to help fuel the process of agricultural diversification with potential to reinvest high profits in other farm activities. Donor policy (including that of USAID) prevents many agencies from providing support to the tobacco sector and this has made it difficult to finance the type of rapid increase in production that might otherwise be possible.

50. At the smallholder level, one of the largest constraints that must be overcome is that tobacco can be very expensive to grow and requires more purchased inputs than almost any other farm enterprise. For this reason, input support through outgrower programs or some other arrangement is essential for success. In Eastern Province there are now four main outgrower schemes, each affiliated with global tobacco merchants. Importantly, each operator must support several hundred hectares of tobacco in order to sustain their operations and achieve effective economies of scale. On this basis, the high cost of operating an outgrower program is both a major constraint and potential risk to the scheme operator, especially because of the risk of side buying from another agent who did not extend pre-finance. This problem is certainly not unique to the tobacco sector and potential solutions that could help minimize this risk are discussed in more detail under the detailed strategies for cotton and paprika in Part Three. Each of these companies has also developed their own approach to outgrower production that could provide lessons for other crop sectors.

51. **Sugar.** Since liberalization, the sugar industry has been one of the most successful areas of Zambian agriculture and regularly produces around USD 25 million in foreign exchange earnings, roughly equal to 15% of total agricultural export value. Until 1998, sugar was Zambia's leading agricultural export (floriculture has now surpassed sugar) with about 45% of total production exported each year, mostly to African countries north of Zambia, which do not enjoy the same climatic advantages as Zambia. Zambia also enjoys a lucrative export quota to the European Union. Both of these market opportunities make it economic to

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<sup>52</sup> Keyser, 2001.

<sup>53</sup> World Bank, 1996; INESOR, 1999.

export as much sugar as possible while simultaneously importing sugar from countries further south to make up any local deficit.

52. Cane production in Zambia is centered on the Zambia Sugar Company's (ZSC) estate of 10 500 hectares at Nkambala on the Kafue Flats near Mazabuka. Cane is also supplied to the ZSC by commercial farmers and through a ZSC-managed smallholder outgrower scheme. These producers are all located within about 30km of the company's processing plant since it is not normally viable to transport raw cane further than this distance. Recently, a new project was set up by private investors to produce cane in northern Zambia where lower irrigation costs are likely to be a significant advantage. To a large extent, therefore, the future of the sugar industry depends on the decisions of those already invested in the sector and each company must obviously have its own strategic development plan.

53. A major advantage of Zambian sugar is that climatic conditions in certain localized areas are ideally suited to this crop, including a virtually frost-free winter, more than 2 800 hours of sunshine per year and a mean summer temperature of 25°C. As a result of these factors, Zambia has enjoyed very high yields by world standards along with low production costs due to inexpensive labor. One study carried out in the mid-1990s, for example, found that Zambia field costs were the fourth lowest in the world compared with 62 other cane producing countries. Combined with factory costs, Zambia was shown to be the world's fifth least expensive producer of refined sugar.<sup>54</sup>

#### **D. Livestock Products**

54. The Zambian livestock sector consists primarily of cattle (for both beef and dairy), poultry and pigs. Small-scale producers, especially in the Southern Province, extensively keep goats, but the market for these is entirely informal and has not been well quantified. A very few commercial farmers raise sheep, but numbers are so small as to have no significant impact on the overall economy.

55. For the main livestock activities (cattle, poultry and pigs), there are small-scale, emergent and commercial producers operating at entirely different levels. In general, small-scale and emergent farmers are not able to maintain effective standards of disease control and livestock frequently suffer from ticks, swine fever, foot and mouth and other diseases. With the possible exception of dairy, these farmers cannot command commercial prices as most are unable to measure up to the required standards of hygiene. Nevertheless, there is a substantial local market in many villages for poultry, pork beef and milk produced by these farmers. These rural markets can provide good cash incomes for livestock farmers and ZATAC has been working to create market linkages with smallholder farmers for the dairy sector.

56. By contrast, the majority of commercial producers are attempting to meet the necessary standards of disease control, but still with only varying degrees of success. Thus, while there is continued disease pressure on commercial units from smaller farmers, it is possible to produce eggs, poultry, pork beef and dairy products of a standard sufficient to meet local commercial market requirements, and in some cases, suitable even for export – especially to the DRC where disease restrictions are a virtual non-issue, especially compared with the SACU markets to Zambia's south.

57. Importantly, the future prospects of all livestock activities are inextricably linked with the capacity of downstream processing facilities. The profitability and performance of each activity is highly dependent upon the efficiency with which the end products are processed and marketed. In every case, processing until only a few years ago was almost exclusively

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<sup>54</sup> Landell Mills, 1994.

controlled by parastatal organizations and was not effectively managed. Although this scenario has changed dramatically since the advent of privatization, the legacy of past mismanagement is still obvious and has restricted the development and profitability of each livestock sector. Still, good recent progress has been made in the beef and dairy sub-sectors with corresponding benefit to farm profitability.

58. **Beef.** There are three fundamental categories of cattle farmers in Zambia. First are the large-scale commercial farmers who produce good quality beef from ranching and feedlotting. Second are the smaller farmers who supply a substantial portion of the domestic market but produce a poorer quality product than commercial farmers. These farmers also provide many of the weaner animals used by commercial farmers for feedlotting. Finally, the third category is the traditional farmers who keep cattle mainly as a symbol of wealth and as a buffer against economic hardship. These animals are usually only ever sold under duress or slaughtered for wedding and funeral ceremonies.

59. Zambian beef has one inherent advantage, and another balancing disadvantage, compared with other countries. On the one hand, Zambian beef can be fed relatively cheaply from grazing at low stocking densities over large areas. Conversely, production costs are increased by the need for a continual veterinary input to combat the high level of endemic diseases in the country. As a result of these balancing factors, almost all Zambian beef is sold on the domestic market. This market is limited by the purchasing power of the average consumer and has been damaged in the past by dumping of surplus beef by the European Union. If the beef industry is to expand, it must access wider markets by exporting.

60. There are potential export markets for Zambian beef in Europe, the Middle East and southern Africa. Whether these markets can be exploited, however, depends on the extent to which endemic diseases such as foot and mouth and corridor disease can be controlled. Although Botswana and Zimbabwe have managed to export beef from the region to Europe, the standards required for entry of meat into the European Union are such that is not presently cost effective for Zambia to attempt to service this market. The Middle Eastern market would be easier to penetrate, but can be served more cost effectively by European and North African beef. These factors mean that regional markets within southern Africa are likely to offer the greatest potential export opportunities, especially given that South Africa imports much of its beef from as far away as Australia.<sup>55</sup> In practice, however, disease and hygiene standards as well as the specific type of products demanded are still important barriers to trade with South Africa and sector participants generally agree that the most likely opportunities for trade are with the DRC and other neighboring markets close by.

61. In the late 1990s, for example, one large firm attempted to penetrate the South African market for imported beef. Although demand in SACU for beef products is quite large around USD 46 million annually for various cuts and processed meat products (including USD 4.8 million imports from Zimbabwe), this firm soon realized that it enjoyed few competitive advantages in this market and has since focused its efforts to develop new trade with Katanga Province in the DRC. Specific problems with penetrating the South African beef market include (i) disease restrictions on Zambian exports; (ii) the high cost of upgrading Zambia's abattoirs to meet South African standards; (iii) high tariffs on beef imports; (iv) lower prices in South Africa compared with Zambia and DRC; and (v) demand for specific cuts of meat that are difficult for Zambia to supply. Of these constraints, disease restrictions was actually the least important since all of the ranches managed by this commercial operation are properly fenced with good veterinary controls. Far more important, therefore, is that beef in South Africa sells for about 10% less than local prices paid by Shoprite. Furthermore, the main South African market is for de-boned hindquarters and any major effort to gear up production

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<sup>55</sup> INESOR, 1999.

to meet this demand would create another, more intractable, problem of selling the forequarters locally.

62. This firm did note that the South African market could perhaps become more interesting as import duties on boneless beef are reduced under the new SADC Trade Protocol, but still sees much more potential for growth and effective competition in the DRC and other regional markets closer by.<sup>56</sup> Especially for entry to the DRC, Zambia is well positioned to trade chilled meat whereas other exporters have to ship meat frozen. On this basis, there are now plans to open a limited number of retail butchery stores in the Congo as an outlet for Zambian beef.

63. **Dairy.** Fewer than 50 commercial farmers dominate the Zambian dairy industry. Together, these farms produce around 60 000 liters of milk per day, which is sold in the formal, commercial market. There are also a large number of small-scale milk producers who own less than five cows each and produce un-pasteurized milk for their own consumption and informal sales. Very few of these small-scale farmers produce milk of adequate quality for the formal market although commercial dairy processors have established a number of cooling points in the past and ZATAC is now actively involved with a program to support this sector.

64. Despite these encouraging developments, any major rejuvenation of the dairy sector is likely to depend on increased production from commercial farmers who are currently the only producers capable of delivering large quantities of bacteriologically safe milk to the urban processors. Importantly, however, past studies of Zambian agriculture and recent reports by the ZNFU all suggest that commercial dairy production is a financially marginal activity at best with many units returning large net losses.<sup>57</sup> Reasons for this include competition from other more established dairy producers, including Zimbabwe, where the added problem of exchange rate distortions make it almost impossible for Zambia to compete on price.

65. Currently, Zambia is a major net importer of milk and any development strategy would probably need to focus on satisfying domestic demand first before giving much emphasis to export production. In each of the past two years Zambia has imported more than USD 2 million of fresh, dry and long-life milk compared with less than USD 70 000 of exports. Increased production for the domestic market, therefore, could go a long way to improving Zambia's overall trade balance.

66. The most promising export market is likely to be the DRC where Zambia's close proximity gives a natural advantage to sell fresh milk, whereas other regional producers are only likely to succeed with long-life milk. One firm now has plans to start exporting milk to the DRC and characterizes the market there as "almost limitless," but says it will take at least three to four years to build its production base. Similar export opportunities may also exist for trade with Malawi, where much of the milk consumed is reconstituted from dry milk powder. Nevertheless, competition from Zimbabwe has so far prevented the successful penetration of this market, even by dairy producers in Chipata only a few kilometers from the Malawi border.

67. In this respect, it is important to be realistic about what can be achieved in the near future if planning a growth strategy for the dairy sector. Some commentators, for example, have noted that Zimbabwe exports over 240 000 tons (240 million liters) of long-life milk

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<sup>56</sup> Specifically, import duties on boneless beef (HC 0202300) will be reduced to 8% by 2003 from 32% in 2000, 24% in 2001 and 16% in 2002. By comparison, the MFN tariff is 40%, which would seem to offer Zambia an enormous trade advantage except for the reasons described above.

<sup>57</sup> World Bank, 1996; INESOR, 1999; ZNFU, 2001.

annually and that current disruptions to dairy production in that country provide Zambia an opportunity to seize some of this market share. Although there certainly may be some new export markets available, the comparison with Zimbabwe is not especially helpful given that domestic production is currently less than 10% of Zimbabwe's exports of long-life milk alone (indeed, much of Zimbabwe's UHT milk exports are sold to Zambia). As such, it will obviously take many years of prolonged investment for Zambia to build a dairy herd capable of producing the large volumes needed to supply domestic consumption and potential export markets. Moreover, given the problem of very low returns to commercial dairy, it is difficult to imagine there would be much incentive for farmers to expand production on such an aggressive scale. Still, more detailed analysis of input costs and possible price advantages in export markets like the DRC and Malawi could help assess whether commercial dairy is truly a viable area for long-term investment.

68. **Poultry.** The Zambian poultry industry, consisting of broiler chickens and egg production, has seen significant growth in recent years in terms of the number of hatcheries and feed processing plants. This has included new investments in Zambia from regional competitors including Ross Breeders from Zimbabwe and Nulaid from South Africa, which have brought about noticeable reductions in the price of day old chicks.<sup>58</sup>

69. One important reason these firms have been willing to invest in the Zambian poultry industry is that the local market is protected by an import ban from both Zimbabwe and South Africa because of the occurrence of Newcastle disease in those countries. In the long-run, therefore, the lifting of this ban is the greatest potential threat to the Zambian poultry industry and would result in an almost certain substantial decline in local production since South Africa and Zimbabwe both enjoy considerable advantages over Zambia in terms of cheaper availability of stock feeds, lower interest rates, more developed infrastructure and less expensive and more widely available veterinary services. Producers of broiler chickens in the Copperbelt anticipate that they might be able to compete with imports under these circumstances due to the higher cost of transportation from both Zimbabwe and South Africa to that area, but this would be unlikely in Lusaka and it is expected that egg producers all across the country would be very severely affected.<sup>59</sup>

70. Notwithstanding this threat to the domestic industry, some export markets for poultry products do exist, primarily in the DRC. One Zambia firm, for example, has been exporting about 15 000 broiler chickens per week to Katanga Province since 1999. The size of this market, however, is still restricted by competition from Zimbabwe, which also exports to the DRC and is able to land broiler chickens and eggs very cheaply because of current exchange rate distortions.

71. **Pork.** The local pork industry has been constrained in recent years by very low producer prices and competition from cheap imports of processed meat. It appears, however, that the industry may have "bottomed-out" recently whereby a shortage of live pigs for fattening have forced some local processors to start offering improved prices. In this respect, one of the most effective ways to enhance sector performance is to improve communication between buyers and sellers and to agree on modalities for bulk supply. Local demand is expected to grow as a result of the privatization of the copper mines and increased disposable income now available to mine workers.<sup>60</sup> Some export opportunities may also exist for trade with the DRC.

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<sup>58</sup> ZNFU, 2001.

<sup>59</sup> INESOR, 2001.

<sup>60</sup> ZNFU, 2001.

72. **Skins and hides.** As indicated by the analysis of Zambia's trade patterns in Part One, animal hides have recently been one of the most dynamic areas of non-traditional export growth. With a total export value around USD 4.3 million in 2000, animal hides (mainly from cattle) in fact accounted for more than 3% of Zambia's total agricultural exports. Most hides are exported at the wet-blue stage for further processing outside the country. Although there is good potential for expansion based on the existing capacity of Zambia's tanning facilities, the fortunes of this industry are inexorably linked to domestic demand for beef and number of slaughters in that sector. Some farmers are also producing crocodile skins, which unlike cow leather, is sufficiently high in value so that the overall viability of this industry does not depend as much on meat sales. Most crocodile meat (in this case the bi-product of hide production) is sold to local hotels and restaurants with some exports to regional and international markets.

### **E. Other Products**

73. **Organic produce.** By default, many smallholder farmers already practice organic production because they cannot afford compound fertilizers, agrochemicals and other purchased inputs and, with appropriate marketing, these products can sometime attract a significantly higher price compared with traditional "non-organic" products. So far, Zambia's most important organic exports have included honey, beeswax, groundnuts and essential oils with potential also for sun-dried tomatoes. Agriflora and York Farm also produce a limited amount of supermarket export vegetables on an organic basis. Much of the recent development in this sector has been made possible by the Organic Producers' and Processors' Association of Zambia (OPPAZ), established in 1999 to assist with certification and to promote Zambian products in relevant trade fairs. The Dutch Government is providing financial support to OPPAZ for detailed research of new market opportunities and the Association has also facilitated trade missions by European buyers to investigate local supply capacity.

74. The main markets for organic products are in Europe. Although total demand in these markets is quite large with good potential for high price premiums, exacting quality standards (both for content and packaging) have made it difficult for Zambia to penetrate these outlets. As with many other areas of agricultural trade, a further problem is amassing sufficient quantities on a regular basis to sustain the interest of European distributors. This has been a particular problem in the honey sector where the cost and time taken to collect honey from widely dispersed beekeepers in outlying areas has been a major constraint. Because of this, some organic exporters have tried to organize farmers in more central locations on an outgrower basis to produce groundnuts and raw materials to manufacture essential oils, but it has still been difficult to produce the quantities international buyers demand. Programs supported by the European Union and NORAD in particular have helped finance these operations, including the private extension programs for training smallholder farmers on the unique requirements of organic production.

75. **Fruit.** A wide variety of tropical fruits grow very well in Zambia, but export opportunities are constrained by low value to weight ratios and high transportation costs. Some seasonal advantages may exist from time to time to deliver early produce to South Africa including watermelon, but these opportunities depend each year on the growing conditions in South Africa and are further restricted by the tendency of South African consumers to regard off-season produce with some suspicion.

76. Trade in certain exotic fruits to Europe may offer better scope for expansion, but this would likely require a large initial investment to achieve the levels of production needed for effective economies of scale and to offset high freight costs. Given the very high interest rates prevailing in Zambia, therefore, there is very little incentive to undertake this type of



long-term investment with delayed returns. Citrus crops, for example, are restricted to a few areas with a suitable climate in Southern and Eastern Province. A number of smallholder farmers also grow citrus crops in Northern Province (mainly around Isoka), but local conditions in these areas do not produce the type of deep color international buyers demand so that market opportunities are generally restricted to domestic outlets and some regional trade (such as the DRC, southern Tanzania and Malawi). Deciduous fruits do not grow in Zambia because of the absence of a cold winter.

77. **Processed foods.** Exports of processed and refined foods increased to USD 35 million in 2000 by six percent from USD 33.8 million in 1999. Sugar was the major export product in this category accounting for over 68% of total value. Other high earning products include molasses, stock-feeds, maize meal and honey. The main markets for these products were the Democratic Republic of Congo (which accounted for 55% of the total), Portugal, Rwanda, Tanzania, Zimbabwe and the United States. In terms of further expansion in this sub-sector, therefore, any broad change is very much dependant on the performance of the sugar industry.

78. The development of freezing and dehydration capacity for vegetables and other suitable products could also offers scope for new investment. Although the financial viability of these operations is by no means assured, and would depend on sufficient quantities of raw materials being available at a competitive price for processing, investment in these areas could help save on the cost of airfreight for vegetable exports and also provide an outlet for produce that is rejected because of quality (especially with respect to dehydration). The Commonwealth Secretariat has already explored some of these opportunities in a recent detailed report with specific investment strategies for individual agro-processing sectors.<sup>61</sup> Likewise, a recent report on the impact of improved grades and standards for agricultural produce highlights further important constraints entrepreneurs would need to consider if planning an investment in this area.<sup>62</sup>

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<sup>61</sup> Commonwealth Secretariat, 2001.

<sup>62</sup> Giovannucci, 2001.

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## PART THREE – INVESTMENT STRATEGIES FOR PRIORITY SECTORS

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1. This section presents the detailed growth and investment strategies for each of the four priority sectors identified above including cotton, coffee, paprika and horticulture consisting of export roses and vegetables for both export and domestic consumption. For each commodity sector, a discussion of recent performance, market opportunities, bottlenecks and leverage points is followed by a set of strategic interventions that could be used to help improve sector performance and attract new investment. Recommendations on the possible way forward and role of ZAMTIE and others agencies in supporting new growth are also included.

### I. COTTON

2. Cotton has long played an important role in Zambian agriculture as one of the most widely grown smallholder cash crops, major earner of foreign exchange and important source of employment both in direct production and downstream processing. Until recently, the cotton sector experienced rapid growth with total export value having increased by more than 200% compared with the period before economic liberalization. Typical export values for all cotton products including ginned cotton, cotton seed, yarn and cloth average around USD 60 million per year in recent seasons equivalent to about 20% of Zambia's non-traditional export earnings in 1999.

3. Although the sector has experienced problems over the past two seasons with low international prices, adverse growing conditions and the restructuring and transfer of ownership of the country's largest gin operator, overall growth again seems headed in the right direction with considerable potential for continued expansion. The USA African Growth and Opportunity Act (AGOA), in particular, provides a very real opportunity for Zambia to trade finished goods and provide raw materials (lint, yarn, cloth) to the regional garment manufactures for entry to the lucrative US markets. Previously, US markets were sealed to Zambia, but the AGOA has created an excellent opportunity to expand the cotton sector and capture some of the regional market share currently held by Zimbabwe, which is not eligible to trade under AGOA due to issues of good governance.

4. Importantly, as one of Zambia's most established agriculture export sectors, a relatively small increase in cotton production of just 20 to 30 percent compared with 1999-2000 would result in an additional USD 8 to 12 million in gross foreign exchange revenue including cotton lint, yarn, cloth and garments equal to around six percent of Zambia's overall balance of payments deficit.<sup>63</sup> At the farm level, a 20 to 30 percent increase in total production could generate an additional ZMK 11 724 million (USD 3.2 million) in net smallholder income compared with the 105 623 hectares cultivated in 1999/2000 and based on an average profit of around ZMK 550 000 (USD 150.00) per hectare with reasonable management.<sup>64</sup>

5. To achieve this potential, however, several fundamental challenges must be addressed that impede expansion, restrict the number of cotton outgrowers and reduce farm profitability. Specifically, the problem of "free-loading" and low recovery rates on credit distributed through outgrower schemes threatens the very survival of this approach to input distribution

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<sup>63</sup> Calculated from EBZ, 2001 and MOFED, 2001 data.

<sup>64</sup> Data on cropped area from MAFF, 2001. Estimated crop profits updated from World Bank, 1996 and Keyser 2001.

on which smallholder production has so far depended. Although Zambia's leading gin operators are already taking steps to address this problem and ensure the reliable supply of raw cotton they need to sustain their operations, it is still useful to consider the range of options available to Zambia and to build consensus among all sector participants on the best way forward. Two possible options for improving the efficiency of the outgrower programs are discussed below.

6. Another area of strategic importance relates to the possible use of genetically modified seeds. In this case, it has been estimated that the number of recommended chemical applications for small-scale farmers could be reduced from six to four treatments equal to a total savings in production costs of around ZMK 23 000 (USD 6.22) per hectare or ZMK 2 430 million (USD 657 000) based on the total area cultivated in 1999-2000. Although there are still unresolved questions over the costs of introducing GM seeds, including the risk of these agents entering the food chain through cotton seed cake and oil, these simple calculations suggest that Zambia also cannot afford to ignore these potential benefits.

7. Finally, for Zambia to benefit under the AGOA, considerable effort will be needed to develop links with US and regional garment manufacturers and other users of Zambian cotton products.

### A. Recent Performance

8. **Background.** Zambian cotton falls into two categories. First, is the rain-fed cotton grown mainly by smallholder and emergent farmers. The short staple local variety these farmers produce is used for making rough cotton fabrics and for blending with longer staples in finer goods. Second, is the irrigated cotton grown exclusively by the commercial sector. This is of medium staple and is grown from imported varieties. Commercial cotton is capable of producing fine cotton fabrics and, through blending with smallholder cotton, could be used to form the basis of a textile industry comparable to that of Zimbabwe.<sup>65</sup>

9. Regionally, Eastern Province is the most important area for cotton and typically accounts for about 50 percent of Zambia's total output. Parts of Central and Southern Provinces are also important cotton areas and generally account for the balance of national production. The total area planted to cotton has ranged from just 35 200 hectares in the 1995-1996 season to 105 623 hectares in 1999-2000. Of this total, the vast majority is planted by small-scale farmers under dryland conditions on plots rarely exceeding two hectares at most.

10. Over the last ten years, cotton production increased from approximately 30 000 metric tons of un-ginned seed cotton in 1990 to a peak production of over 104 500 tons in 1998. Over the same period, the number of small-scale producers also increased dramatically to peak at an estimated 86 000 farmers in 1998, but then fell-off to around 50 000 growers over the next two years due to unfavorable prices and the restructuring and eventual pullout of Lonrho Cotton, which was the leading operator of smallholder outgrower programs. Lonrho Cotton has since been sold to Dunavant Cotton (a US-owned company), which is now investing heavily to improve the efficiency of its outgrower operations. The following table illustrates the growth in the production of cotton up until the 1997/98 season and subsequent decline and the suggestion of a recovery in the estimated volume of production in the current season.

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<sup>65</sup> World Bank, 1996.

**Table 11: Record of Cotton Production.**

Season	MT Seed Cotton
1995-1996	75 000
1996-1997	80 000
1997-1998	104 500
1998-1999	84 700
1999-2000	45 000
2000-2001 (projected)	75 000

**Source:** Industry estimates.

11. In addition to the decline in volume, the industry has experienced a sharp decrease in the export prices of all cotton products over the last three years. World cotton prices have declined steadily over the past 50 years by approximately 60% in real terms and have continued to decline since the mid 1990s when prices last increased. Over the last 50 years, cotton prices have only declined for five consecutive years twice before and the current downturn in prices has now continued since the 1995/96 season. The effect of the decline in volume and prices is clearly illustrated in the following table reflecting the most recent export earnings in 1999/2000 as about half that of 1997/1998.

**Table 12: Cotton Sector Export Values (USD millions)**

	1996/97	1997/98	1998/99	1999/2000
Lint		22.8	37.9	9.5
Fuzzy seed		3.7	1.8	1.8
Yarn		40.3	33.6	26.0
Cloth		1.4	0.4	0.4
<b>Total Exports</b>	<b>50.6</b>	<b>68.2</b>	<b>73.7</b>	<b>37.7</b>

**Source:** EBZ (2001).

12. Although the problem of low prices has certainly had an impact on farm profitability and discouraged many farmers from continuing to grow the crop, quantitative analysis suggests that cotton is still one of the most profitable crops widely suited to small-scale production. Even at the current low market prices, crop budget analysis indicates that Zambian smallholders are able to earn a good profit and a reasonable return on their investment of around ZMK 550 000 (USD 150.00) per hectare with proper management.<sup>66</sup>

13. **Outgrower programs.** Because cotton is a relatively input and management intensive activity, the sector's strong recent performance has been made possible mainly through a variety of outgrower schemes now operating in different parts of the country. Under these schemes operated by cotton ginners, farmers are typically provided with seed, chemicals, extension support and marketing services. Importantly, the cost of these operations can be enormous and represent a considerable risk to the program operator due to the potential for side buying by other agents that do not extend the same support.

14. The trust between smallholder producer and ginner has also been severely damaged by the inability of the ginner to forecast crop selling prices and the producer's difficulties in understanding the input costs and the inherent debt. The breakdown in the relationship in many cases increased the likelihood of the producer selling to the highest bidder, with little to no respect of the supply of the inputs. Increased default rates on input credit increase the cost to the ginner, which is then passed on to the next round of outgrowers. These increased costs have resulted in a decline in the number of outgrower programs, fewer outgrowers, less

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<sup>66</sup> Updated from World Bank, 1996 and Keyser 2001. A more through analysis of the current costs and returns to Zambian agriculture is now being prepared under a study sponsored by ZNFU and ACF.

extension services being provided and a general reduction in the viability/profitability of cotton production.

15. As noted, it is estimated that at its peak just a few years ago there were over 86 000 small-scale farmers growing cotton under various outgrower programs. The problem of side selling/crop poaching, however, has become a major issue and now threatens to undermine the recent success of the cotton sector unless a solution can be found. For this reason, most gin operators have been experimenting with approaches to minimize the risk of side-selling and, as discussed below, Dunavant Cotton has developed an approach, which now seems to be working reasonably well for its operations.

16. **Lead investors.** The Zambian cotton industry is made up of a number of large private investors who moved in after 1991 with the introduction of economic reforms and privatization of the former parastatal company, LINTCO in 1994. The largest ginner is Dunavant Cotton, formally owned by Lonhro Cotton. Several other ginning companies have also set up operations in Zambia including Clark Cotton from South African, Amaka Cotton and Swarp Textiles funded by the CDC. The state-owned company, Mulungushi Textiles was partially privatized in a joint venture with China. These companies all provide outgrower services for small-scale farmers in one form or another to ensure the throughput needed to justify their large investments in ginning and textile manufacturing equipment. There are now a total of 12 ginneries operated by 5 downstream producers; three of these maintain ginning operations only and two companies that are also involved in spinning and textile manufacture.

17. Ginning capacity in Zambia increased to over 150 000 tons per annum while the highest level of cotton production reached just 104 500 tons. The excess ginning capacity led to a scramble for cotton and a breakdown of the relationship between the receivers of outgrower assistance and the providers. Consequently, the outgrower schemes experienced increased defaults and losses. The problems were further exacerbated by the decline in the world prices that translated into reduced prices being paid to the farmers.

18. In terms of further processing, the domestic spinning industry is another important component of the cotton sector accounting for 45 to 70 percent of total sector value including lint, cloth and seed as indicated in the table above. Most yarn produced in Zambia is exported to Europe with about USD 3 million in annual sales to Mauritius and South Africa, equivalent to about 10% of total production. The garment industry, on the other hand, recorded strong growth up to the early 1990s but was then hard hit by importation of second hand clothes, which contributed to the closure of most industries, including those that were doing well in exports. As recently as the late 1980s, for example, Zambia regularly exported around USD 3 million worth of cloth and finished garments annually, but this declined to less than USD 200 000 in 1995. Export performance started to pick up again slowly from 1996 reaching USD 371 000 by 1998 and USD 394 000 in 2000.<sup>67</sup> Mulungushi Textiles, a joint venture between China and the GRZ, is the main exporter of finished material, principally traditional *chitenge* material to neighboring countries and other cloth to China. Most of Zambia's total cloth production is used domestically to manufacture clothes, including work garments and school uniforms.

19. Leaders of the Zambian textile industry report that they could easily produce more yarn and finished cloth for the domestic and export markets, but that the main constraint is the limited availability of raw cotton for processing. In this respect, increased production at the farm level and also improved access to finance for Zambia's textile manufactures to buy the large volumes of lint currently being exported by other dedicated ginning companies, could

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<sup>67</sup> EBZ, 2001.

go a long way to promoting new trade, growth and investment in this strategically important sector.

### **B. Market Opportunities**

20. In order to develop a growth and investment strategy for cotton it is necessary to look closer at external factors affecting the global marketplace, recent changes that have and are taking place in the regional trade patterns, and the opening up of other opportunities that may now be available to Zambia as a result of AGOA and other protocols. The challenges and the threats that apply to the market are also considered.

21. **The global environment.** International cotton markets have been affected by a number of significant events and structural changes that can be blamed for much of the recent decline in international price. Specifically, the bursting of the Asian region “growth bubble” in 1998 gave rise to the major downturn in the economic fortunes of many developing economies, with a significant impact on a wide range of commodity prices. The rapid decline in the prices of cotton and cotton products rippled through the textile and apparel industries as well, forcing major realignments of producers and manufacturers. Taiwan, for example, which was traditionally a major player in the textile and clothing manufacturing sectors, has been forced to seek alternative manufacturing bases to compete with the expanding industry all over Mainland China. In addition, India, central Asia and Eastern Europe are all seeking to establish their positions as suppliers of cotton textiles and garments. In particular, the newly emerging central European cotton textile and clothing producers, being on Western Europe’s doorstep, threaten to challenge Zambia’s position as a substantial supplier of cotton and cotton products to Europe.

22. **New opportunities in SADC.** The political realignment of South Africa and the establishment of SADC (to ultimately replace the old SACU order) introduce further changes to the market in which Zambian cotton and cotton products may be sold. Implementation of the SADC agreements commenced in 1998 and are progressing with South Africa lowering its tariffs more rapidly than the other SADC countries. Many of the participants in the South African textile industry interviewed for this study noted that most SADC members have been slow to take advantage of these incentives and stressed that major opportunities still exist for increased Zambian exports. Indeed, recent ITC analysis of SACU demand and SADC supply capacity reveals that there is a substantial demand for cotton and certain woven fabrics of the type produced in Zambia. The same study also found there is a considerable (yet smaller) demand in SACU for cotton yarn.<sup>68</sup> Clearly, increased intra-regional trade has been a priority of SADC members and the reduction of tariff and non-tariff barriers are expected to result in substantially increased trade.

23. In terms of specific provisions, the new SADC Trade Protocol eliminates the previous 9.7% import duty on cotton and cotton products to SACU, thereby creating new opportunities for more profitable export trade from Zambia. As discussed, however, whether or not Zambia will be able to capitalize on this potential, begins with its ability to increase production through improved systems of input supply and price certainty for smallholder farmers. Success also depends on development and rehabilitation of facilities in Zambia’s textile sector including spinning, cloth and garment manufacture. The SADC Trade Protocol also contains a number of quota restrictions for certain textile products, but Zambia stands to benefit under the MMTZ (Malawi, Mozambique, Tanzania and Zambia) exemptions that allow for single-stage processed goods to be traded whereas other SADC countries are only entitled to duty free access for two-stage processed goods.

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<sup>68</sup> International Trade Center, 2001.

24. **The significance of AGOA.** As noted, the US African Growth and Opportunity Act (AGOA) provides a major opportunity for sub-Saharan African countries to export cotton garments to the USA without tariff or quota restrictions.

25. Importantly, cotton itself does not stand to benefit directly under the provisions of AGOA and will still be subject to quotas and substantial import duties. All member countries that have obtained a visa under the provisions of AGOA, however, will be able to export apparel made of US cotton yarn and fabric into the USA without restriction. Countries included in the agreement will also be able to export garments manufactured of US-made fabrics, or from fabrics and yarn made from cotton produced in AGOA-certified countries. Furthermore, under a special rule for lesser developed countries, those with a per capita gross national product less than USD 1 500 in 1998 (including Zambia) will enjoy duty free access for apparel made from fabric originating anywhere in the world until 30 September 2004 once they have met the additional requirements for the AGOA apparel provisions. In practical terms, this means that once Zambia has officially obtained its AGOA visa, it will not only be able to export garments to the USA under certain rules, but it will also be able to supply other regional textile manufactures that have obtained their AGOA visa with Zambian raw materials (lint, yarn, cloth) to make garments for export to the USA

26. The use of the visa system is intended to ensure that the preferences only apply to materials grown and produced in the licensed country and not imported from non-applicable countries. Those countries wishing to take advantage of the preferences under AGOA need to satisfy the Secretary of Commerce of the United States that they have in place all necessary import and export controls and systems to ensure the authenticity of the certificates of origin in respect of products that will either, directly or indirectly, be exported into the United States. With ZAMTIE assistance, Zambia's visa system appears to have finally been approved and an official announcement will be made in the very near future.

27. In this respect, AGOA affords Zambia a major opportunity to expand its own garment manufacturing operations and also to become an important supplier of cotton to other qualified countries with more established manufacturing capacity. South Africa, Kenya and Mauritius, for example, all have large garment manufacturing industries and have already secured their AGOA visas to allow duty and quota free access to the US markets. Traditionally, these countries have imported large amounts of cotton from Zimbabwe, Egypt and India, none of which qualify under AGOA – Egypt and India because they fall outside the geographic territory of AGOA and Zimbabwe because of concerns over good governance. Historically, Zimbabwe and Egypt provided approximately 68% of total of the South African and Mauritius cotton imports each year, but this pattern could be set for change as the garment manufactures in these countries look increasingly for AGOA-certified cotton to allow free trade with the USA. It is expected that this demand could easily exceed Zambia's supply capacity and farm production will need to expand rapidly to meet this demand and not hand the opportunity over to other producers in the AGOA territory.

### **C. Bottlenecks and Leverage Points**

28. Based on the substantial new business opportunities and the potentially explosive growth in market demand, Zambia's cotton industry faces a number of major challenges. Specifically,

- The industry will have to rapidly increase production volumes and become a reliable and consistent supplier to capture a substantial share of the SACU and ultimately the AGOA export market potential that was previously supplied by Zimbabwe and Egypt.

- Zambia needs to improve its reputation for being able to consistently produce the highest quality, “A-grade” cotton.
- Zambia must maintain acceptable financial returns for farmers, ginneries and down-stream processors given that world prices are likely to continue their downward trend in the foreseeable future.

29. Zambia could potentially increase cotton production by a magnitude of at least two or possibly three times in response to the changes in the regional market and the potential impact of AGOA. Currently Zambia exports approximately USD 10.4 million into SACU compared with Zimbabwe, which exports nearly three times as much at around USD 28.0 million, but is not entitled to AGOA participation.

30. In order to increase volume rapidly, more commercial and small-scale farmers are needed along with considerable work to improve smallholder yields through improved access to inputs and extension services. Although average smallholder yields have improved from only 400-500kg seed cotton per hectare in the early 1990s under LINTCO to 600-700kg at present, this is still well below yields achieved by small-scale growers in Zimbabwe of 1 000kg per hectare and 1 200kg per hectare in Cameroon and other West Africa countries. Typically these countries invested heavily in agricultural research, input marketing, extension services, credit and collection services. In this respect, it seems unlikely that a low-input, low-yield approach will work, and if Zambia is unable to gear up its production capacity, it is likely to remain a small player in the region with loss of market share to other countries entitled to benefits under the new SADC and AGOA trade protocols.

31. The need for increased efficiency in Zambia focuses attention on improved inputs, continuing research and development, adequate technical and extension services, training and properly regulated credit and marketing structures. Genetically improved seed, increased use of fertilizer and an upgrading of the infrastructure, roads, rail and communications will all be required to meet the needs for increased efficiency and increased volumes. GM seeds in particular could result in considerable yield improvement and lower production costs through savings on agrochemicals. The industry also needs to be more predictable, transparent, disciplined and self-regulated in order to attract the necessary farmers, lines of credit and investment.

32. The world price of cotton has continued to decline reaching an all time low of USD 0.46 per pound last year. Although a small price increase is forecast for this season it is unlikely that the price will increase substantially and remain stable over the longer term. Whilst the depreciation of the Zambian Kwacha against the US Dollar will increase prices in local currency terms, compensating for some of the decline in the world commodity price, the cost of inputs sourced in international currencies will also increase in accordance with the change in the currency rates. Zambian cotton growers, ginners, spinners and weavers will need to continue to reduce costs in line with or greater than, the decline in the world prices for cotton. If Zambia is not able to continue improvements in efficiency and yields, it is likely that cotton farmers could choose less demanding crops thereby perpetuating the problem of an unstable production base.

#### **D. Strategic Interventions**

33. If Zambia is to take advantage of the marketing opportunities being offered under SADC and AGOA, issues affecting the outgrower programs have to be solved. A number of suggestions have been made based on some models that have proved to be effective in other parts of the world. The point here is not to suggest that any of the models are more



appropriate than any other model and the brief descriptions given below are provided mainly to stimulate discussion on possible courses of action.

34. **The Dunavant Approach.** The so-called “Dunavant model” utilizes the concept developed by Dunavant Cotton of appointing “distributors” responsible for the provision of the inputs to small-scale farmers in his or her local community and for the collection of the repayment of the cost of the inputs when the crop is sold. The Distributor is given strong incentives to ensure the highest level of recovery and earns a commission on the crop sold to any of the Dunavant ginneries. The program relies on the good standing of each distributor in the local community; each distributor must be successful cotton farmer in their own right and the relationship between the distributor and Dunavant Cotton is clearly understood and documented in a binding legal agreement. Dunavant Cotton secures the debt by a charge over the assets of each individual farmer who receives the inputs. The Distributor is provided with a shed to which deliveries of the inputs are made and from which the cotton is collected. The program also provides for extension services and in certain instances transport in addition to a variety of other benefits and advantages.

35. Recently, the Agribusiness Forum put the Dunavant model forward to SHEMA on the basis that SHEMA use the organization that is already in place as a platform to develop viable and sustainable farmer associations throughout the country. The purpose would be to transform the existing structure, the Distributor and smallholder farmers (outgrowers) to come together and form small local associations within a formal structure. Based on the support of the ginneries each of these proposed associations should be able to secure financial independence and credibility to tap into the commercial banking system. The proposal is that the setting-up, development and training of the farmer associations are part of SHEMA’s mandate over the next six years. The proposal suggests that the proven system of outgrower support, the high repayment rates being experienced and the fact that it already extends to over 1 600 existing farmer groups, covering over 64 000 small-scale farmers will ensure its success in the longer term. It is also suggested that the farmers associations would not be restricted to working only with cotton farmers, but could include members who have other crop or even livestock interests.

36. **The Uganda Model.** An alternative approach has been suggested based on a cotton outgrower program set up in Uganda. This program was set-up and supervised by the World Bank in Uganda and operated for six years, but is now expected to close in the near future having brought farmers to the point where most are now able to afford inputs on their own. World Bank task managers interviewed by phone in Kampala suggest the experience with this program has been very positive and that the industry is satisfied with the outcome of this scheme.

37. Briefly, the Uganda program was set up and, in essence, run by the cotton ginneries with the legal endorsement by the Government. The program provides for the legally mandatory contribution to a common fund of a levy for each bale of cotton produced by the ginneries. The fund is used to purchase the inputs necessary for the country’s cotton production and those inputs are provided to the farmers according to their abilities to grow and sell the harvest back to any of the ginneries. The ginneries are free to compete on the price to the farmer and the farmers compete for future supplies on the basis of their previous production.

38. Under this program, the whole cotton crop is collectively owned by the ginneries from the time the seed is purchased until the bales of cotton are sold. The farmers are essentially contract growers getting paid for the use of their land and labor. Increased yields are rewarded by the higher earnings derived from the sale of the cotton to the ginnery offering the best price to the farmer. In terms of legislation, a **national register** of cotton farmers is maintained that details the farmer’s ability and past performance in producing cotton. The

allocation of inputs for the next season is based on the farmer's ability to perform and past track record.

39. The program has a number of advantages. Provided that the program has the support of the Government and is properly set-up it should be bankable and the funds necessary to operate the program can be borrowed from commercial banks. Since the earnings from the sale of the exported cotton are in a hard currency, offshore loans may be used which will considerably reduce interest costs. The common pool derived from the levy will also be able to fund, on a national basis, all necessary research and development, training and extension services. The pool will be able to determine the most cost effective use of fertilizer and be able to provide it to the farmers as part of the total input package. Reducing input costs by bulk buying of fertilizer, insecticides and chemicals.

40. The program does require the support of the Government to prevent any "free-loading", fraud and or manipulation by the ginneries. It is, however, easier to police the ginneries than thousands of small-scale farmers. In addition, all borders would have to be properly controlled to ensure that cotton is not purchased in Zambia and then shipped across the border for ginning in another country. All growers would have to demonstrate their prior years sales before being able to qualify for inputs in the future.

41. **Crop register.** There are some additional aspects that if they could be implemented at the same time would substantially enhance the overall effectiveness of either the "Dunavant/SHEMP" or "Uganda Model" approach. One of the enhancements would be to set-up a database/register of crops that have been pledged to secure the repayment of the input loan. The Agribusiness Forum is in the process of setting up such a database for paprika farmers who have received the inputs and have effectively pledged their crop. The database is intended to record crop pledges and to prevent "free-loading" by unscrupulous buyers. It has been suggested that a similar database should be developed in respect of the farmers associations and their members. The existence of such a database register would substantially enhance the bankability of the farmers associations with potential for significant benefits in cotton. Importantly, under the "Uganda Model" it would be relatively easy to make financial provision to establish and maintain such a database.

42. **Genetically modified seed.** The introduction of genetically improved seed is another important intervention that seems to offer great potential for improved yields, increased production and substantial savings in total cost for small-scale farmers and outgrower scheme managers. Although good progress has been made in identifying specific varieties of GM seed that could do well in Zambia, approval has been delayed by government procedures and concerns over harmonization with SADC and COMESA trade policy. Concern has also been voiced by proponents of organic produce that GM cotton seeds could threaten new trade opportunities for honey and other natural products. Certainly, the trade-offs between the use of traditional hybrid and new GM cotton seeds need to be better understood, including the risk of GM material entering the food chain through cottonseed cake in stockfeed and oil for direct human consumption. Given that these seeds could be of almost immediate benefit to farmers, ginners and textile manufacturers alike, these issues should be considered as a matter of some urgency with work to advance the debate and reach a national consensus on the use of GM seeds as quickly as possible.

## E. The Way Forward

43. Several critical issues constrain Zambia's ability to capitalize on the growth potential of the cotton sector. Specifically,

- Outgrower programs need to be strengthened and better regulated so as to make them an integral part of future growth in the market.
- Commercial farmers and smallholder growers alike need to increase their production capacities with improved yields to become more efficient and competitive.
- Zambia needs to secure the prescribed AGOA visa so that it is allowed to export textile products into the US market and so that it is able to sell its cotton into regional markets for eventual exports to the USA as finished garments.
- The South African market needs to be made aware of Zambia's position with regard to AGOA and its strategy to upgrade its export quality and quantity.
- The question of cotton production "best practices" would also seem to need to be better developed, maybe standardized, distributed and publicized.

44. The unblocking of some of these issues could lead to very substantial increases in export earnings and jobs created in the whole region. The following suggestions are not prescriptive and they have not been developed in any detail as specific strategies, but do offer a practical way forward for the cotton industry including opportunities for ZAMTIE and other donor projects to foster discussion on key issues and future intervention.

45. **The AGOA Visa.** ZAMTIE has already taken the initiative in helping Zambia to secure its AGOA visa for textiles and apparel. The visa has been approved and the announcement will be made official shortly. Awarding of the visa, however, is only the first step toward realizing the potential benefits of AGOA and considerable effort will still be needed to develop links with US and regional garment manufacturers and other users of Zambian cotton products. Success also depends on building up the volume of production at the farm level in order to attract the interest of international buyers and promote improved efficiencies and capacity utilization of existing ginning and textile manufacturing plant and equipment.

46. Although ZAMTIE has so far played a pivotal role in helping to secure the AGOA visa, there still seems to be a need to help build awareness on the potential benefits and restrictions among all relevant sector participants. An awareness campaign has already been launched by ZAMTIE, but confusion on specific provisions and market opportunities still persist along with unfounded rumors of tax incentives and other financial breaks that supposedly facilitate entry to the US market. Again, the advantage to the cotton sector of AGOA is that Zambia will be able to export, within certain criteria, finished garments to the USA and also raw materials to other AGOA-certified countries (notwithstanding specific SADC restrictions) to manufacture finished garments to be shipped to the USA. Success in this regard begins with improved production at the farm level and also on building ties with regional garment makers and potential buyers of finished Zambian goods in the USA.

47. **Improved outgrower systems.** Improved regulation of cotton outgrower programs is a vital and extremely complicated strategic objective. In the first place, it is clear that the cotton industry itself needs to take responsibility for the development and implementation of outgrower programs that both ensure a timely delivery of essential inputs to smallholder farmers and protect against the risk of crop theft through side-buying by other agents. Two possible solutions including the "Dunavant approach" and "Uganda model" have been put forward and more discussion is needed to agree on the best way forward and identify possible areas of cooperation in implementing these solutions by the entire industry.

48. No matter what approach sector participants agree would be best in the long-run, both approaches would clearly benefit from the establishment of a pledged **crop database** shared across the industry with information on farmers supported by each outgrower company. This information would ensure there can be no excuses for the side-buying of a crop a farmer has pledged to a particular company. With adequate legal provisions, such a crop register could also provide grounds to prosecute agents for the side-buying of cotton they did not finance. ZAMTIE could well join with some of these initiatives to provide specific assistance or fulfill a particular role including technical assistance on options of how to set up a “pledged crop” database. The database project could be taken further to include the development of a fully-fledged Credit Bureau. ZAMTIE could investigate the level of interest in this possibility and also facilitate necessary discussion to agree on the best way forward.

49. The introduction **GM seeds** could also go a long way to improve the efficiency of smallholder outgrower programs with substantial savings on production costs for individual farmers and reduced exposure to credit risk for scheme managers. Until recently, good progress had been made to gain approval for these seeds and follow-up to address key concerns is still needed to bring this debate back onto the table. Specific concerns expressed by those interested to promote organic crops, for example, need to be better understood including the likely value of future organic exports compared with the possible gains for cotton producers.

50. **Trade Missions.** Trade missions to promote Zambia’s exports will be essential if Zambia is to capture the potential benefits offered by AGOA and other regional trade protocols. The Export Board of Zambia and other trade bodies including the Cotton Ginners’ Association and the Agribusiness Forum already organize and participate in these missions on a limited scale, but much more work is needed to explore opportunities and build awareness throughout the region and in the USA on Zambia’s imminent status as an AGOA-certified producer. As discussed, Zimbabwe currently does not qualify for benefits under AGOA and future trade missions could target the buyers of Zimbabwe cotton and textile products in particular to try and capture some of this market share. Future trade missions should also focus on building a better understanding in Zambia of the potential demand for cotton and cotton products and how best the local industry can gear-up to meet this challenge and take full advantage of newly created market opportunities, including possible joint ventures with regional and US-based textile companies.

## II. COFFEE

51. Coffee production in Zambia began on a significant scale in the mid-1980s and the crop has, over time, earned a superior reputation in the international marketplace and provided farmers with high financial returns. Zambia exclusively produces a washed arabica coffee regarded as having an acidic taste and thin body in good demand among world’s blenders and roasters. Coffee exports have typically accounted for about four to six percent of Zambia’s total agricultural exports equivalent to some USD 8.5 million in gross annual foreign exchange revenue in the most recent 2000 export season. The vast majority of coffee grown in Zambia is produced on large commercial farms, but there is good potential to expand smallholder production with the right type of support. On this basis, coffee clearly meets the definition of a high leverage crop where even a relatively modest improvement of 10 to 20 percent in total output would have a significant impact on overall agriculture sector growth, increased export revenue, employment generation and improved farmer income.

52. In developing a strategic action plan for the coffee sector it is necessary first to take a closer look at the recent performance and external factors affecting Zambia’s market opportunities. It is also important to consider new opportunities that may be available as well as the threats and dangers that could restrict growth opportunities. This process is intended to

identify the critical areas for leveraged investment as well as the role direct sector participants, the donor community, ZAMTIE and other development projects could play in helping to enhance trade and investment.

### A. Recent Performance

53. Coffee production started in Zambia when a parastatal company planted around 750 hectares of irrigated coffee on three estates in Northern Province near Kasama and Mbala in the early and mid-1980s. Most plantings on independent commercial farms began around 1984 with continued expansion throughout the 1990s as world coffee prices reached all-time record highs and finance became available through the World Bank's Coffee I and II loan facilities and also from the Enterprise Development Fund.

54. Except under special circumstances, all coffee grown in Zambia is marketed through the Zambia Coffee Growers' Association (ZCGA), which arranges contracts with international buyers and engages in a certain amount of promotion work by attending international trade fairs on behalf of its members. The ZCGA also exercises certain regulatory functions passed through the Coffee Board and is well regarded for maintaining high quality standards and a good reputation for Zambian coffee in the international marketplace. For most individual farmers, the fact that the ZCGA manages the details of crop marketing is a welcome arrangement as this approach saves the grower the trouble and expense of having to identify and communicate with international buyers on their own. On the other hand, this approach may also have certain disadvantages in the long run in that it also restricts a grower's ability to arrange forward contracts that can be used to obtain credit and help ease individual cash flow requirements. Partly for this reason, some growers have been able to obtain special permission to market a share of their crop independently although most coffee is certainly still traded through the ZCGA.

55. Broad performance indicators for the past several seasons are summarized below. Taken together, these numbers show that the Zambia's coffee sector has experienced fairly steady growth since the mid-1990s with total production now more than three and a half times greater than just six years ago. These data also summarize price development and show that world prices have recently touched new lows with a significant impact on total export earnings for the sector.

**Table 13: Coffee Sector Performance**

	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01
Total production, MT	1 580	2 167	2 627	3 526	2 400	5 800
Value, USD per MT	2 485	2 574	3 529	2 889	2 042	1 482
Export Revenue, USD '000	3 837	4 849	8 064	8 896	5 084	8 597

Source: Zambia Coffee Growers Association Ltd.

56. **Commercial production.** Large commercial farms now account for more than 99% of Zambia's total coffee production equivalent to an estimated 5 800 metric tons in the most recent 2000/2001 season. Currently, there are 22 large commercial farms with around 1 100 hectares of coffee trees in full production located mainly in the Mazabuka and Mkushi farm blocks and on some large estates around Lusaka. Furthermore, the African Plantations Corporation (APC) acquired the former parastatal estates in Northern Province and has invested heavily to revitalize and expand these plantations with around 900 hectares now under full production. Taken together, therefore, Zambia's total yield of 5 800 metric tons was produced over an area of about 2 000 hectares giving an average yield of 2.9mt per hectare. This output compares very favorably with yield levels in neighboring countries that do not always enjoy the same climatic advantages as Zambia. Parts of Central and Northern Province, for example, are ideally suited to coffee due to relatively high rainfall, which helps

save on irrigation costs and leads to high yield. Coffee also grows well in Southern Province, but higher irrigation costs also detract from crop profitability. Coffee generally only grows well at elevations greater than 1 200 meters above sea level.

57. Importantly, Zambia's commercial coffee sector is set to nearly double in size over the next few years. On top of the 2 000 hectares already under production, a further 1 900 hectares of new seedlings have recently been planted on 55 commercial farms. When these trees come into full production over the next two to three years, Zambia's total production is expected to increase to around 12 000mt. As shown in the table above, current export values are in the range of USD 8.6 million per year and, once the new trees already planted are fully mature, total exports could easily increase to more than USD 17.5 million, equal to about 11% of Zambia's agricultural exports at current low prices. Assuming world prices eventually return to their previous long-run average of around USD 2 500 per ton compared with USD 1 482 per ton at present, total export earnings could easily reach USD 35 million equivalent to almost 23% of Zambia's total agricultural exports.

58. In terms of employment creation commercial coffee requires an input of about 350 labor days per hectare including some 275 days of casual labor for key tasks including harvest and pulping. On this basis, the 1 900 hectares of new coffee now recently planted will generate approximately 665 000 days total employment for rural workers. Combined with the 2 000 hectares of already mature coffee, the total commercial crop will demand around 3 700 person years of labor each season including full time and casual workers.

59. Despite current problems with low prices, Zambian commercial coffee production is highly efficient and can still generate excellent profits. Key results from a financial analysis of the returns to coffee under different price scenarios are summarized below. This table shows that even at current low prices, farmers can still earn a good net profit of around USD 1 300 per hectare; when prices improve to the 10-year average, crop profits improve substantially to around USD 4 400 per hectare. The estimated break-even price for commercial coffee is USD 967 per ton and price could fall by a further 27% from the current low before all financial returns would be lost. In other words, even under very difficult market conditions, commercial coffee is still an attractive enterprise with great potential for increased profits as prices improve.

**Table 14: Financial Returns for Commercial Coffee**

	Price Scenario		
	Current low USD 1 500/mt	10-year average USD 2 500/mt	10-year high USD 3 700/mt
<b>Gross margin – USD/ha</b> (total revenue – variable costs)	1 899	4 399	7 399
<b>Net profit – USD/ha</b> (gross margin – depreciation costs)	1 332	3 832	6 832

**Source:** Updated with current prices from World Bank, 1996.

60. **Smallholder production.** Small-scale farmers have so far been only minor participants in the coffee sector despite attempts to stimulate production under the World Bank and EU-funded projects. In the most recent 2000-2001 season, it is estimated there were a total of 500 smallholder coffee growers, but these sold a total of just seven tons of coffee through official ZCGA channels. Total plantings in the smallholder sector have been estimated at around 600 hectares, including many trees that now produce almost no coffee at all. In addition to coffee traded officially through the ZCGA, reports suggest that equivalent amounts (especially from farmers near Isoka which is an important area of smallholder production) may have been marketed informally in cross-border trade with Tanzania, bringing the total smallholder production to around 14 tons, or just 0.2% of commercial production.

61. Importantly, total production in the smallholder sector may also be set for dramatic change as one large Lusaka-based commercial farm (Agriflora) has recently announced plans to invest USD 1 million in a scheme to promote small-scale coffee on an outgrower basis. This scheme was developed and tested with the help of ZATAC and is expected to involve 600 farmers producing 500 tons of mild arabica coffee and will create 500 seasonal and 2 500 permanent jobs. The outgrower scheme is planned to target 10 cooperative societies in Lusaka and is expected to be launched by the end of 2001. Much of the coffee will be irrigation-fed and more than 250 hectares of irrigation equipment have already been installed to ensure that farmers can produce all year round and that quality is maintained to the highest possible standard. The coffee will be processed at cooperative-based pulparies managed by Agriflora staff and farmers will be encouraged to intercrop the coffee with export-quality vegetables to ensure a cash flow while awaiting the first harvest. Agriflora also plans to assist small-scale farmers from selected Northern Province cooperatives with the marketing of their crop this year and to encourage the establishment of new plantations.<sup>69</sup>

62. As with commercial production, financial analysis of smallholder coffee shows this crop can be an extremely attractive enterprise. Specifically, with reasonable low-input management, a recent study of similar conditions in Zimbabwe shows that farmers can easily achieve yields of around 150 to 400kg green bean coffee per hectare and expect a net income of around USD 175.00 to 375.00 respectively even at current prices. With more intensive management and use of recommended inputs, farmer profits are shown to improve substantially to levels far greater than the returns from smallholder cotton and possibly even paprika. In terms of price risk, fob export prices could fall by a further 65 to 80 percent from their current level before smallholder production would be unprofitable.<sup>70</sup> Although the cost structures are likely to be somewhat higher in Zambia compared with those analyzed in Zimbabwe, these results suggest that new investments in smallholder coffee could provide high returns for individual farmers and (perhaps) outgrower scheme managers alike. More detailed analysis on the costs and returns to Zambian agriculture is now underway and it is hoped this report will provide further information on the benefits of smallholder coffee when ready.<sup>71</sup>

## **B. Market Opportunities**

63. **The global market.** Coffee is the second most traded commodity worldwide after oil with price determination carried out on a global scale depending on the characteristics of individual coffees and demand for these types by international blenders and roasters. Arabica coffee (both washed and unwashed) is traded on the New York market; robusta coffee is traded in London. These markets generally fluctuate within a fairly narrow range and only experience major change when leading producers are affected by adverse growing conditions such as frost. Current prices are at a 30-year low but are forecast to increase slightly in spite of the further expansion of the Brazilian production. The World Bank forecasts a gradual recovery in the price of coffee with it recovering to levels comparable to those of the late 1990's only by the year 2010.

64. On this basis, there is very little scope for Zambia to influence the price of its coffee or to negotiate better premiums for high quality. The ZCGA has already been active in this area and is regarded as having done a very effective job in promoting Zambian coffee to attract the best prices possible. International blenders, however, are concerned only with the

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<sup>69</sup> Reuters, 25 September 2001 and various phone interviews.

<sup>70</sup> Calculations adapted from a recent analysis of smallholder coffee in Zimbabwe grown under similar conditions to those in Zambia. See Keyser, 2001.

<sup>71</sup> This agricultural competitiveness study is being implemented by IMCS Ltd, with ZNFU and ACF support.

taste characteristics of individual coffees and Zambia must compete with other producers of relatively acidic washed arabica. Viewed from another perspective, however, the fact that Zambian production is a mere drop in the ocean compared with total world production, means that any increased production in Zambia will not have a significant impact on world price. On this basis, the main challenge in marketing Zambian coffee is simply to plant more coffee so that there is more to sell.

65. Most Zambian coffee is sold to buyers in Germany and other parts of Europe. Major buyers in these markets include The Hamburg Coffee Company, Kord, and Eugene Attae in Germany, Wolf & Co in Holland, and Volcafe and Amcafe in Switzerland. In the United Kingdom, ED&F Man is the main buyer. Regionally, I & M Smith and W.M. Cahn are also important brokers of Zambian coffee based in South Africa.

66. **Gourmet markets.** The marketing of Zambian coffee through gourmet outlets has long been thought to offer potential to attract higher prices and increased export revenue because of the country's success in maintaining consistently high quality standards. As a report carried out by the USAID-funded ZATAC project notes, the ZCGA has "demonstrated expertise in blending of beans of specific Zambian provenance that compares favorably with the world's top blends."<sup>72</sup> In this respect, the gourmet market could offer a potential to earn higher prices, but it is also important to stress that wholesale agents who supply the gourmet boutiques still buy from the international commodity market and are unwilling to pay any premium unless there is a particular demand for a certain coffee. In this respect, any strategy for penetration of the gourmet market depends greatly on advertising. Colombia, for example, has enjoyed good success in this area as a result of its promotion campaign, but produces around 11 million 60kg bags of coffee annually and has vast resources to spend on building a brand identity for its product. By comparison, Zambia only produces around 97 000 bags each year and any advertising campaign would have to be in scale with this more limited production.

67. To address this challenge, ZCGA's strategy has been to focus on very specific niche markets with limited advertising focused on gourmet buyers. This approach enjoyed a good amount of success in that the ZCGA has been able to blend various Zambian coffees to produce a highly rated product branded as "Zambica." Markets targeted for the so-called Zambica coffee include buyers in San Francisco and elsewhere in west coast of the USA plus Japan. This niche market premium currently accounts for less than 5% of Zambia's total exports, but is regarded as gaining in popularity with considerable scope for expansion. Despite ZCGA's very limited marketing budget, Zambica coffee appears to be gaining popularity in the targeted markets with prices regularly above the New York spot price. There could also be good scope to package and sell Zambica coffee in local tourist camps and lodges.

68. **New opportunities in SADC.** The establishment of SADC to ultimately replace the old SACU grouping may afford Zambian coffee producers an opportunity to participate in the South African market. In 2000, SACU imported approximately USD 10.9 million worth of arabica coffee in total, of which only 822 000 was from the SADC region including 670 000 from Zimbabwe. It is possible that Zambia could take some share of the South African market away from Zimbabwe and other producers including Tanzania, but this would still be traded at the world price and would not appear to be worth the effort given that Zambia has larger and more established market outlets elsewhere. Currently, the largest market outlets for Zambian coffee are in Europe with the possibility of developing new demand over the long-run for the branded Zambica coffee in Japan and the west coast of the USA. Gourmet marketing in South Africa would be an unlikely strategy for new investment in that South

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<sup>72</sup> Fynn and Mufwambe, 2000.



African consumers have not developed the same taste for high quality coffee as in the USA and Japan.

69. **Opportunities in the USA.** Exports of coffee, whether roasted or unroasted, decaffeinated or undecaffeinated, coffee husks and skins, or instant coffee, all enjoy duty-free status into the US market (even before AGOA).

### **C. Bottlenecks and Leverage Points**

70. The main challenge to growth of the coffee sector is simply to plant more coffee, both in the commercial sector and by smallholder farmers. Although some opportunities are certainly available for new marketing activities, the clearest way to grow the sector is through increased production and the limited availability of crop finance is certainly one of the most important constraints in this regard. Especially since coffee takes around three years to mature before the first major harvest, Zambian commercial banks are generally not willing to invest their own resources to fund this type of long-term project. Furthermore, there has recently been limited uptake of credit opportunities under donor-supported development funds because of high collateral requirements, brief grace periods and steep interest rates.

71. **Commercial farmers.** The problem of limited availability of crop finance is especially relevant to further development of coffee in the commercial sector. Although there have been many new plantings in recent years, it is essential that Zambia should maintain this momentum, which is becoming increasingly difficult in the current period of low prices. Although coffee can still provide a good financial return, farmer margins are most definitely lower than before, and the terms and conditions of long-term finance facilities managed by most commercial banks, including donor supported development funds, do not appear to adequately address the needs of the coffee sector for Zambia to achieve further rapid growth. Beyond the cost of nurseries and plantation establishment, for example, ZNFU reports indicate that specific assistance is also needed for the development of dams and other water resources.<sup>73</sup>

72. **Smallholder farmers.** As described, past performance in the small-scale sector has been discouraging with only seven tons of coffee exported through formal channels last year. Although limited access to finance is certainly a problem for smallholder farmers, other important constraints relate to limited access to seasonal inputs, insufficient extension support, inadequate irrigation and long delays in the milling, marketing and payment process. Quite simply, in the absence of extension services and management assistance, inputs to smallholder trees have either been withheld completely or maintained just above minimum tolerable levels. Coffee is also somewhat unique in its requirement for on-farm processing so that current limited access to suitable pulping and fermentation technology has further constrained smallholder production and led to far lower qualities than produced by commercial growers.

73. Some progress was made to address these constraints under previous development projects, but the uncertainty over waiting three years for a return on their investment further discourages farmers and is a major impediment to growth in this sector. In this respect any attempt to develop smallholder coffee on a serious scale must also address the problem of how to provide a steady income and ensure continued interest in coffee at least until the trees are fully mature. The new Agriflora model developed in cooperation with ZATAC goes a long way to providing practical solutions to these problems and the strategic advantages and opportunities to expand this approach are discussed in more detail below.

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<sup>73</sup> ZNFU, June 2001.

74. While there are clearly many problems that must be overcome, one especially important point relates to inability of smallholder farmers to carry out dry processing to remove the parchment and produce the clean green bean exported by Zambia. For the most part, smallholders have had to rely on commercial coffee processors to complete the process with the result that their crop is processed last thereby leading to long delays in payment. These delays and uncertainty give further rise to problems with production and encourage a low-input, low-risk strategy despite the potential for significantly greater returns with improved management.

#### **D. Strategic Interventions**

75. **Commercial development.** For commercial farmers, the most effective strategic intervention to promote coffee production is quite simply to improve access to investment finance. As noted, investment loans under existing donor supported development funds are becoming increasingly difficult to service because of current low prices with only limited uptake for further expansion in recent years. The options for improved credit delivery to commercial coffee producers need to be better understood including the specific cash flow requirements of this unique tree crop. Such an undertaking could be coordinated by the ZCGA in partnership with commercial banks and other donors that might eventually support a new investment facility. ZAMTIE could play a role in helping to promote discussion on these issues as well as limited technical backstopping if needed through the provision of specialized consultants.

76. **Smallholder development.** As described, coffee offers considerable scope for smallholder involvement with the potential for high farmer incomes. To achieve this potential, one of the first strategic objectives must be to capitalize on the investment already made by improving the level of smallholder management, profitability and enthusiasm for growing coffee. With respect to existing production, this is likely to require the introduction of an improved system of payments to encourage smallholder production and ensure resources are available in a timely fashion to buy the inputs needed for improved yield. New approaches to encourage additional plantings and develop irrigation capacity on a cooperative basis in partnership with established commercial and corporate producers should also be explored.

77. One strategic option for improving the system of smallholder payments would be to introduce a system of **warehouse receipts** similar to that already being developed in the grain sector. This system is already under consideration by the ZCGA and would require that a base price be established for all deliveries to a certified warehouse. The receipts could be made negotiable through any commercial banks against the security of an undertaking by the ZCGA to repurchase all receipts discounted by the commercial bank. The ZCGA would then retrieve the coffee from the millers that issued the original receipt and, based on the final determination of the grade of that particular parcel of coffee, the original producer would be paid a bonus for any quality improvement above minimum price established at the time of delivery. Although this approach offers considerable potential, sufficient funds would have to be secured for the ZCGA to redeem the warehouse receipts from the commercial banks. This could be supported with donor finance, but is an approach that needs careful examination including the development of a comprehensive business plan.

78. The other possible way to improve payment to smallholders would be to establish a new **coffee mill** that could be managed by the ZCGA or some other body and ensure more timely processing than the current system of contract milling by established commercial farms. A central mill could also be used by new commercial growers, thereby reducing the need for investment finance in terms of the savings on installation of a dry processor. Zimbabwe adopted a similar approach in the early stages of development of its coffee sector

and no doubt this experience provides a number of useful lessons Zambia could draw on in mapping the best way forward.

79. With regard to encouraging small-scale production, new approaches to **cooperative development** like the activities being supported by Agriflora described above also offer a very clear model for establishing links between small-scale growers and established commercial interests. Although there are still many risks to the Agriflora program and it has yet to be fully tested in practice, early indications are that this type of approach could provide a good entry model for other investors interested to promote smallholder coffee. Although a large initial injection of cash for irrigation and seasonal inputs is still required (which may be difficult given current problems with limited access to finance), one advantage is that the cost of this development will eventually be counted against the farmer's price thereby providing savings in the long term compared with establishing a commercial operation for direct production. The plan to organize farmers in easy to manage blocks around central irrigation facilities also helps ensure against any future risk of side-selling outside the system. As Agriflora gains experience with this approach to smallholder development, it will be important to monitor progress and consider the lessons learned so that the approach can be adapted to suit the needs of other potential investors.

### **E. The Way Forward**

80. The ZCGA is the main body charged with the responsibility of promoting development in the coffee sector. Although the ZCGA has a good reputation, it will need considerable support and assistance if it is to embark on a major effort to promote smallholder production and improved access to investment finance for commercial growers. ZAMTIE is in a good position to work with the ZCGA in this respect and help plan an effective way forward by drawing on regional consultants and fostering partnerships with other donors interested to support the coffee sector.

81. A good example of this need to support new partnerships is that the ZCGA is already in the process of reviewing different approaches to improve payments to smallholder farmers, but, by its own admission, does not have the management and financial resources to carry out this work on its own. Either ZAMTIE or some other donor could appoint an expert consultant to assist the ZCGA undertake the required feasibility studies. Especially with regard to the possible solution of establishing a system of warehouse receipts, there is good scope for cooperation with ZATAC, which has already done much work to develop a similar system for grains.

82. It will also be important to carefully follow the progress of the new Agriflora investment. Based on the lesson learned from this experience, the ZCGA and other trade promotion bodies including ZAMTIE could then advise other potential investors on this type of opportunity as a viable business-centered approach to the development of smallholder coffee. As indicated, this model was developed for Agriflora with the assistance of ZATAC, and the challenge now seems to be to promote this type of model (or a variation thereof) among other potential investors. One very practical step in this regard would be to work with the ZCGA to build interest among the donor community in providing finance for this type of investment.

### **III. PAPRIKA**

83. Paprika was first introduced to Zambia in the early-1990s by private investors who sought to promote the crop mainly among large-scale commercial farmers. Since then, the sector has grown rapidly with considerable smallholder participation to the extent these

farmers will account for about 25% of the total national crop in the 1999/2000 season. Total production in 2001 is expected to reach an all time high of more than 3 000mt due to extensive production in the Zambezi valley by one large corporate farm. Paprika is in good demand internationally with total consumption around 100 to 120 thousand tons annually. Zambia normally accounts for less than 2% of this total and there is good potential to further expand production and capture a greater share of the world market. Recent export values for Zambia have been in the range of USD 1.8 to 2.5 million depending on world price and total production.

84. From the farmer's perspective, the financial returns from paprika can be very attractive and compare favorably with those from most other cash crops produced by commercial and smallholder growers. Of the priority crops identified here, export horticulture and coffee usually offer greater net profit on a per hectare basis, but paprika costs less to produce and has become an increasingly important part of many farm strategies, especially for smallholder growers with reliable market access. An important advantage of paprika is that unlike horticulture and coffee, paprika is much better suited to small-scale production since it does not depend on irrigation and utilizes many of the skills farmers are already familiar with, especially in the tobacco growing areas of Eastern Province. Although more complicated to grow than cotton, paprika provides nearly three times as much net return from an equivalent sized plot equal to some ZMK 355 000 (USD 96) per lima (quarter hectare) and is therefore likely to be a good choice, especially for households with a shortage of active labor, including female headed households.<sup>74</sup>

### A. Recent Performance

85. Zambia's paprika sector has experienced tremendous growth in recent years expanding from a small base of only 150mt total production as recently as 1995 to more than 3 000mt expected in the current season, including some 700mt grown as a rain fed crop by smallholder farmers and the balance produced almost entirely under irrigation on commercial farms.

86. Until just a few years ago, all Zambian paprika was exported exclusively as a dry, deseeded product in baled form (similar to tobacco) for processing outside the country. This situation changed a few years ago when a private investor completed the installation of a large grinding mill capable of processing 3 250mt of dry paprika annually thereby allowing Zambia to add value locally and save on high transport costs for bulk paprika. Zambia's processing capacity, however, is now set once again for dramatic change in that another private investor has nearly completed the rehabilitation of an existing oil extraction plant. Once operational, this will give Zambia the potential to capture further value in processing with maximum savings on transport of very high value oleoresins.

87. Recent performance indicators for paprika sector are summarized in the table below. The drop in value from 1999 to 2000 is mainly due to inclement growing conditions rather than a major structural transformation of the sector.

**Table 15: Record of Paprika Exports**

Year	Total Export Value (USD '000)	Paprika as % of Total Agriculture Exports
1998	810	0.4 %
1999	2 846	1.4 %
2000	1 806	1.2 %

Source: EBZ, 2001.

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<sup>74</sup> Cheetah, 2001.

88. **Outgrower production.** As a crop that demands at least some agro-chemicals and fertilizer for good yield results, much of the recent success with smallholder paprika has been made possible through a variety of outgrower programs now operating in various parts of the country. The largest such operators are Cheetah Zambia, which provides seed and extension advice, and BIMZI Limited, which also provides fertilizer and agro-chemicals to some of its growers. Others working to promote paprika include 35 or so members of the Zambia Association of High Value Added Crops (ZAHVAC), operating mainly on a regional level in parts of Eastern, Central and Southern Provinces with most sales through BIMZI, which works similar to an export agent. Currently, there are around 10 000 small-scale farmers growing paprika that rely on these outgrower programs for inputs, extension support and secure markets outlets.

89. Although the outgrower approach has been instrumental in promoting smallholder development, these schemes suffer from poor regulation with widespread problems of side buying that could undermine the entire future of smallholder production. This problem is certainly not unique to paprika, but is perhaps more pronounced in this sector because of the crop's very high value and relatively small production base compared with some other commodities like cotton. The presence of external agents including buyers from the Spanish market further complicate efforts to regulate the paprika industry and ensure that farmers sell their crop to the entrepreneur that helped support production. As discussed under the section on cotton, possible solutions to this problem may include the use of local distribution agents with an interest in monitoring farmer performance and ensuring all sales are to the scheme manager or even the establishment of a revolving input fund financed from a levy on all paprika exports.

90. **Processing capacity.** As indicated, the rehabilitation of an oleoresin extraction unit near Lusaka is nearly complete and will significantly enhance Zambia's ability to add value locally. Total world demand for paprika oil (a tasteless product used exclusively as food color) is around 240mt annually equivalent to 4 800 tons of dry, deseeded paprika. South Africa and Zimbabwe both already have oleoresin production capacity sufficient to process several thousand tons of dry paprika so Zambia is likely to face stiff competition on price to capture a share of this global market. The rehabilitation of the Zambian oleoresin plant is being financed with a loan from the Eastern and Southern Africa Trade and Development Bank. Total project costs are estimated at USD 3.1 million of which the loan represents USD 1.4 million.<sup>75</sup>

91. Importantly, the type of oleoresin processing plant being rehabilitated in Zambia will demand a constant thru-put of paprika to avoid expensive shutdown and start-up procedures. Therefore, to the extent that plant managers have little choice but to use lower quality paprika to feed this operation, the plant could threaten the long-term investments some operators have made to impress on farmers the importance of good quality and high ASTA values. When low quality paprika is used to manufacture oleoresin, the quality of the oil also deteriorates with a corresponding decrease in value. In this regard, plant managers certainly do have an interest to maintain reasonable quality standard, but perhaps not as much compared with the trade of dried paprika, especially when the cost of closing the oleoresin plant because of insufficient raw materials is taken into account.

## **B. Market Opportunities**

92. World prices for paprika are normally quoted with reference to the fob price in southern Spain, which is both a major supplier and consumer of paprika and the main

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<sup>75</sup> PTA Bank, 2001.

destination of Zambia's produce. Of Zambia's USD 1.8 million total paprika exports in 2000, only 20 percent (USD 359 000) was traded to South Africa equal to 26 percent of SACU's total paprika imports. Worldwide, about 70% of paprika is used as a condiment powder, with the balance sent for hexane extraction to derive a color lipid for industrial food processing.

93. Moisture content and ASTA value (color) are especially important characteristics and have a major bearing on the crop's final worth. Importantly, smallholder farmers often do not understand these factors and many growers have felt cheated in the past when they were paid less for their crop than expected at the outset. This outcome is further explained by the tendency of some outgrower firms to promise a high price to attract farmers into paprika production, only to make adjustments later on when the ASTA value and moisture content are known. Major firms discourage this practice by promising a guaranteed *minimum* price although, at the field level, the tendency among some scheme managers has been to promise the *maximum* instead.

94. **Global opportunities.** Total global demand for paprika is in the order of 100 to 120 thousand tons annually for all uses. Recently, farmers in southern Africa (including growers in Zambia, South Africa, Zimbabwe and Malawi) have produced about quarter of this total and prices can be highly sensitive to a swing in production of just a few thousand tons. In this respect, it is especially interesting to note that financial analysis comparing the returns to paprika shows that smallholder prices could fall by up to 70% from their current levels before the crop would return a net loss whereas commercial prices could only fall by about 40%.<sup>76</sup> On this basis, it appears that Zambian smallholders could be especially well placed to compete in the world market even with lower prices. Even a 200% increase in smallholder output would only result in an additional 1 400 tons on the world market and these producers could easily cope with any possible impact on world price as a result of this small additional supply. At current export prices, an increase in smallholder production of this order would bring some USD 2.4 million in additional foreign exchange earnings for Zambia.

95. In this respect, current disruptions to commercial agriculture in Zimbabwe could offer a significant window of opportunity to build the Zambian industry through increased small-scale and commercial production. Specifically, commercial farmers in Zimbabwe normally account for about 10% of total world production but are now under severe pressure and so may be forced to scale back their production with possible implications for world price. Importantly, the commercial crop grown in Zambia enters the market at the same time as that from Zimbabwe and this could lead to new opportunities to sign new contracts with processors that depend on Zimbabwean paprika to sustain their operations. Smallholder paprika mostly enters the market at a different time than Zimbabwe's crop, but could still benefit from improved prices and favorable market conditions. To take advantage of these opportunities, however, considerable work is needed to expand production and ensure a more reliable system of credit recovery, especially for smallholder growers.

96. **Regional markets.** There is a good demand in South Africa from operators of large hexane processing plants for Zambian paprika. One established buyer of Zambian paprika reports it could accommodate more than 1 000mt of Zambian paprika annually and that there are several other buyers who could easily purchase similar amounts. Most of this demand is for winter paprika grown under irrigation by commercial farmers, which comes onto the market when the South African processing plants have excess capacity. South African buyers also note that commercial growers are able to achieve more consistent quality standards than smallholder farmers, but say they are still willing to accept smallholder paprika as long as it has a good color value and is free from disease.

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<sup>76</sup> Updated from World Bank, 1996 using current prices.

97. Recently, about 20 percent of Zambia's total paprika crop has been sold to South Africa equivalent to USD 359 000 in 2000 or 26 percent of total SACU imports. In the same year, Zimbabwe sold just USD 56 000 of paprika to SACU despite having a crop more than four times as large as that grown in Zambia. Taken together, therefore, it seems that the largest and most lucrative markets for paprika lie outside the southern Africa region. Zambia and Zimbabwe could both easily expand their penetration of the South African market, but still prefer to trade on a more global scale with most exports going to southern Spain.

98. There are also certain indications that Zambian agents may have damaged their reputation in South Africa recently by failing to deliver the full amount of paprika specified in forward contracts. Although the reasons for this failure are not entirely clear, part of the reason relates to certain price advantages available in Europe compared with South Africa despite savings on transportation costs. Other problems for Zambian exporters begin at the farm level and with the difficulty buyers sometimes have in acquiring the full crop they helped pre-finance on an outgrower basis.

99. **Impact of new trade protocols.** Zambia's inclusion in the SADC regional trade block and under AGOA are not expected to have a significant bearing on the paprika industry. Neither the SADC Trade Protocol nor AGOA appear to offer any material change in the terms of trade for paprika that could give Zambia a competitive edge over other world producers.

### **C. Bottlenecks and Leverage Points**

100. The main challenge in the paprika sector is quite simply to continue the expansion of Zambia's production base. Although the global market is fairly small and price sensitive to production change, Zambian farmers appear well positioned to compete even at lower prices in that paprika can still provide commercial and smallholder growers excellent financial returns at prices far lower than those prevailing today.

101. **Commercial production.** For most commercial farmers, limited access to affordable crop finance is one of the most important bottlenecks to increased production. Although paprika can provide very good financial returns, total costs are also very high at around USD 1 600 to 2 000 per hectare before finance charges for irrigated production with natural and artificial drying respectively.<sup>77</sup> As discussed in Part One of this report, interest charges on seasonal loans in Zambia are extremely high at around 50% per annum, which can easily translate to an additional USD 500 in total production costs per hectare depending on a farmer's financing plan and length of time the loan is outstanding. High costs for electricity, diesel fuel, fertilizer and agrochemicals compared with neighboring Zimbabwe further constrain the opportunities for growth of commercial production and add to the challenge for farmers of managing their cash flow throughout the season to minimize dependence on credit. As a relatively labor intensive crop that demands about 300 days hired labor input per hectare, problems in supervising such a large labor pool further restrict the incentives for an aggressive expansion of paprika production.

102. **Smallholder production.** With respect to small-scale farmers, the most fundamental challenge that must be overcome is to improve the efficiency and transparency of input supply and marketing arrangements. As described, most smallholder paprika is financed through an outgrower type arrangement where scheme managers provide varying levels of input and extension support in exchange for an agreement to buy the crop at pre-determined price (depending on color value) at the end of the season. Unfortunately, the problem of side buying by agents that did not provide inputs is especially rife in the paprika sector and may threaten the very survival of smallholder production. One reason for this problem has to do

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<sup>77</sup> Cheetah, 2000.

with the very nature of paprika as a high-value commodity where only a small increment in product handled can result in substantially higher returns for the buying agent.

103. The fact that paprika outgrower schemes are now under some threat is of particular concern given the crop demands a fairly high level of management and full understanding of handling procedures. Without proper care there are many pitfalls that can easily erode a farmer's profit including the risk of localized flooding and disease risk. For these reasons, extension support is critical for the success of smallholder paprika and the problem of side buying has already led some outgrower companies to scale back on the services they provide. In the long run, this could have major implications not only for the volumes of smallholder paprika grown in Zambia, but also for the country's reputation as a supplier of good quality product with high color value.

#### **D. Strategic Interventions**

104. Interventions that would address the problem of high finance costs for commercial farmers and risk of side selling in the smallholder sector are essentially the same as those discussed elsewhere for other crop sectors.

105. With respect to **finance for commercial producers**, any significant improvement in the current situation is likely to depend on better overall macroeconomic conditions. There may, however, be room to explore new financing mechanisms that international donors could support to keep the interest margins charged by commercial banks to a minimum. Likewise, there may also be an opportunity to arrange pre-finance for commercial production in cooperation with processors in South Africa that need Zambian paprika to sustain their operations. Although South African agents indicated they could perhaps be interested in this type of arrangement, they also stress that recent experience whereby some Zambian agents pledged to sell specific quantities of paprika only to later renege on their agreement (for factors both beyond and within the Zambian agent's control) limit the scope for this type of business deal.

106. In the smallholder sector, the Agribusiness Forum has recently launched an initiative (financed by NORAD) to establish more disciplined paprika outgrowers operations. The proposed model is based on the Dunavant approach described in the section on cotton and would involve the establishment of **local associations of paprika farmers** at the community level. Each association would self-select its own members with joint liability for all inputs taken on loan from an outgrower company chosen by the group. It is understood that this approach has the full support (at least in the current planning stage) of the main paprika traders operating in Zambia, who are naturally interested to promote improved regulation of the sector with systems for tracking the distribution of inputs and how the crop is sold. Agriflora is also exploring similar opportunities to support smallholder paprika through **farmer cooperatives** similar to the program described above for coffee.

107. An important part of the proposed Agribusiness Forum approach would be to establish a **crop register**. Specifically, it is planned that a national public register would be established in which the details of all farmers including location, area planted and value of the inputs provided would be recorded. This information would then be widely published to minimize the risk of side buying and to provide a basis for prosecution of illegal traders who buy a crop they did not support. As described in the section on cotton, this system would need to be updated each season to be of practical use.



### E. The Way Forward

108. As discussed, paprika offers great potential for expanded production and high producer profits for both smallholder and commercial farmers. Especially because of the disruption to agriculture in Zimbabwe (which enjoys a similar climate to Zambia and produces around 10% of the world total) there may be a good opportunity for Zambia to capture some of the market share away from this neighboring producer. A further event that is likely to have a major impact on sector performance is the re-commissioning of an oleoresin plant in Lusaka. This plant offers excellent potential to add value locally and capture the highest possible returns for Zambian producers, but could also threaten the industry to the extent that lower quality standards become more acceptable.

109. In mapping a way forward for the paprika sector, one of the most important challenges is to facilitate increased smallholder production through improved management and security of outgrower operations. As described, the Agribusiness Forum is already working to address this problem with considerable scope to work through other development projects at the field level to promote the development of business-oriented farmer associations. Beyond the farm level, however, it is also important to note that Zambian buyers may have damaged the country's reputation by failing to deliver in full on recent contracts signed with South African processors. Transparency and good business conduct is required at all levels of the value chain and there may be a role for ZAMTIE to work with local chambers of commerce and other representatives to build awareness on the importance of this issue.

110. Indeed, the problem of side selling by smallholder farmers only exists because traders are willing to side buy. Despite opportunities for short-term gain, these practices may cause irreparable damage to the paprika sector and most buyers are well aware of this risk. As such, there could be a good opportunity for ZAMTIE to work with other projects like ZATAC, SHEMP and the Agribusiness Forum to help develop a **code of conduct** for the paprika sector and procedures for **contract negotiation** at the farm level to build awareness among producers of their responsibility to the outgrower manager. The relationship between smallholder farmers and outgrower managers must be synergistic and mutually beneficial and it seems that some relatively simple steps could go a long way to improving the current situation.

111. Some scope may also exist for paprika traders to develop new market linkages with firms that now depend on Zimbabwean paprika. This would mostly be for commercial production grown under irrigation in winter and further research is needed to determine the extent of these markets as well as any possible price advantage compared with current arrangements. These investigations could include **trade missions** by sector participants to investigate such opportunities further.

## IV. HORTICULTURE

112. **Export markets.** Horticultural crops including fresh cut flowers (mostly roses) and pre-packed specialty vegetables (mostly baby corn, baby carrots, mangetout and sugar snaps) together represent one of Zambia's most valuable agricultural export sectors.<sup>78</sup> In recent years, the combined export value of these commodities has been greater than USD 50 million equivalent to more than 25% of Zambia's total agricultural exports. Although the investment and management requirements for horticultural exports limit the opportunities for broad

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<sup>78</sup> As discussed in Part Two, fruits do not offer the same potential for export growth because of lower value to weight ratios and high inland transportation costs and are not considered here in the discussion of priority commodities.

participation, especially in the floriculture sector, the financial rewards to farmers can be very attractive with high net profits and excellent returns to capital. A well managed two hectare rose unit, for example, can give an annual net income of USD 60 000 to 80 000 depending on the varieties grown, even with the lower prices prevailing today compared with five years ago. Vegetable crops are normally grown over a larger area with two or three rotations each year and can yield a net income around USD 1 000 to 1 500 per hectare for commercial outgrowers depending on the crops produced and number of rotations per season. Rose and vegetable operations are also among the most labor intensive of all agricultural enterprises and can easily generate more jobs on a per hectare basis than any other area of farm production.<sup>79</sup> For these reasons, horticulture clearly meets the criteria of a priority sector where only modest growth would be of major benefit to the national economy.

113. Despite these advantages, the production and marketing of any horticultural export is a highly specialized business that cannot be entered into lightly. At the field level, success demands unparalleled attention to quality control and strict adherence to European standards governing the use of pesticides, fertilizers and other inputs. Export crops must also be carefully graded and presented according to exact specifications. It is not unusual for more than 30% of a vegetable crop to be rejected because of quality and this risk has discouraged many independent commercial farmers from continuing with production.<sup>80</sup> Marketing, therefore, is one of the biggest obstacles to success. Although cut flowers can still be sold independently on the Dutch auction, most other produce must be sold as part of a forward contract negotiated by an export agent with the capacity to supply the specific volumes and varieties of produce foreign buyers demand.<sup>81</sup>

114. For these and other reasons, virtually all vegetable exports and 100% of cut flowers are grown on individual commercial and large corporate farms, mainly within 100km of the Lusaka International Airport. Small-scale farmers are only marginally involved in the export sector with fewer than 200 vegetable growers linked to one established export agent under a new outgrower initiative. This is in sharp contrast with the experience in Kenya where there are perhaps 60 000 to 75 000 smallholders involved in export-oriented vegetables, including production for canners and freezers.<sup>82</sup> Despite the more stringent marketing standards that apply today than when Kenyan horticulture first developed, there is still considerable scope for increased participation of Zambian smallholders in some of the high potential farm areas near Lusaka and perhaps also in Eastern Province (where the airport at Lilongwe is nearby) to be organized around central irrigation equipment on a cooperative basis. In Zimbabwe, for example, there are now more than 2 000 smallholder farmers linked to established export agents compared with only a handful of producers just a few years ago.<sup>83</sup>

115. **Domestic markets.** Vegetable crops including tomatoes, cabbage, rape, onion and okra all enjoy good demand in rural and urban markets and are an important part of most Zambian diets. Importantly, the production of fresh vegetables for the domestic market is very different from growing vegetables for export with far greater scope for smallholder participation. Indeed, smallholder farmers already account for a considerable share of total vegetable produce traded in Lusaka at Soweto Market and other domestic outlets.<sup>84</sup> These markets, however, are constrained by limited cold storage space, poor hygiene standards and uncompetitive price discovery mechanisms to the detriment of smallholder and commercial farmers and urban consumers alike. On this basis, the development of new and properly

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<sup>79</sup> Updated from World Bank, 1996 and Keyser 2001.

<sup>80</sup> Giovannucci, et. al. 2001.

<sup>81</sup> Keyser, 2001.

<sup>82</sup> Jaffee, 1997.

<sup>83</sup> Keyser, 2001. This investment in Zimbabwe was designed using technical assistance provided under the World Bank's Agricultural Credit and Export Promotion Project.

<sup>84</sup> Kanchela and LeFleur, 2001.

regulated wholesale market facilities in conjunction with a campaign to build public awareness on the importance of quality standards could likely provide very high returns in the long run through increased smallholder income and new opportunities for trade. Developments along these lines could also provide a solid (and perhaps even necessary) foundation for further expansion of the export industry – especially with respect to foreign wholesale markets.

### A. Recent Performance

116. **Export sector.** Export horticulture has been one of the most dynamic areas of Zambian agriculture in recent years. From a base of only USD 2.1 million in 1987, fresh horticultural produce grew from the 11<sup>th</sup> to the 2<sup>nd</sup> most valuable non-tradition export sector after cotton and textiles at the end of last decade.<sup>85</sup> Details of this performance are given in Table 16, which shows that the horticulture sector contracted somewhat in 2000, especially because of a loss of value in floriculture.

**Table 16: Record Horticultural Export Performance (1990-2000)**

	Export Value (USD '000)		
	Cut Flowers	Fresh Vegetables	Total
1990	1 050	4 544	5 594
1991	1 902	5 807	7 709
1992	2 987	2 934	5 921
1993	5 506	2 391	7 897
1994	9 110	2 421	11 531
1995	9 534	3 703	13 237
1996	n.a.	n.a.	n.a.
1997	15 242	14 464	29 706
1998	32 852	20 182	53 033
1999	42 607	23 129	65 736
2000	33 863	19 965	53 828

**Source:** Compiled from Keyser, 1995; MAFF 2001; and EBZ 2001.

117. As indicated, floriculture replaced fresh vegetables from about mid-1992 as the most important category of horticultural exports. There are at least three historic reasons for this transformation that still have bearing on current performance. First, and most important, is that the rose industry benefited considerably from loan packages made available by the European Union and other donors. Of particular importance was the so-called “rose line of credit” introduced by the European Investment Bank (EIB) exclusively to help finance the long-term investment costs for this floricultural crop. Other low-interest European, Dutch, Japanese and World Bank loan facilities have also been available at different times to assist the rose sector, but no dedicated facilities have been made available to assist export vegetables.

118. The second important factor with a bearing on overall performance of the vegetable and flower sectors relates to the nature of major European markets. Specifically, whereas most vegetables to enter Europe up until the early-1990s were sold as loose-packed produce through wholesale markets, the rise of large supermarket chains resulted in most produce having to enter under direct contract for pre-packed, shelf-ready produce. Wholesale markets still exist, but the high cost of airfreight helped lead Zambian investors away from these outlets in favor of more lucrative markets for pre-packed baby vegetables. Independent farmers simply could not amass the quantities or guarantee the variety and continuity of

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<sup>85</sup> In 2000, horticulture export value was actually greater than from cotton and textiles.

supply supermarket buyers' demand. Because of this, it has been more difficult and time consuming to build the vegetable sector and two large export agents (with extensive area under their own direct production) now handle the vast majority of produce shipped abroad. By comparison, the marketing of roses is more straightforward since these are still easy to sell independently through the Dutch auction.

119. Finally, a third reason for the transformation of Zambia's horticulture export sector, relates to the ongoing process of economic liberalization. Specifically, up until the early 1990s a foreign exchange retention incentive, applicable to 50% of the value of non-traditional exports, attracted many commercial farmers to the vegetable sector. At the time, foreign exchange was difficult to obtain and much of the retention from horticulture was used to secure essential imports needed to sustain traditional, non-export farm activities. With the elimination of foreign exchange controls, however, this need basically evaporated and most independent farmers switched to easier to manage crops.

120. As a result of these factors, most horticultural exporters today are international business people by profession rather than farmers. Most rose growers, for example, entered production mainly as a business undertaking and had almost no experience with floriculture when they began. Consequently, these investors have had to rely on skilled farm managers to run their field operations. Initially, under the EIB program, low cost extension support was available, but this has since been withdrawn with the consequence that many growers have encountered major technical problems. Likewise, independent vegetable growers simply cannot amass the volume and variety of produce large supermarket chains demand on a regular basis and two large corporate farms now handle most exports. Recently, a new investor with previously established supermarket contacts has also recently started shipping produce overseas.

121. **Rose production.** The most important recent development in the rose sector is that an estimated 18 producers (equal to roughly half of Zambia's total rose investors by number) are now experiencing grave financial distress, with many having stopped production altogether. Reasons for this include problems with access to specialized technical assistance, high airfreight costs and falling prices on the Dutch market. Importantly, most of these distressed farms are two-hectare operations that do not allow investors to benefit from the same economies of scale that accrue from a larger operation.

122. Although there are many causes behind these recent failures, the fact that there are now a large number of greenhouses out of production is a major concern for the industry and Zambia as a whole. Apart from lost foreign exchange revenue and employment opportunities, the fall in output restricts the opportunities to negotiate low prices for airfreight and further increases cold storage and handling costs through lower capacity utilization. Detailed concept business plans have been prepared on behalf of the Zambia Export Growers' Association (ZEGA) for a financial bailout and restructuring of these distressed farms.<sup>86</sup> Although there are still a number of unresolved questions over the best management structure and approach, rehabilitation of the now defunct rose operations clearly needs to be a matter of high national importance and will require support from many stakeholders for success.

123. **Export vegetables.** As discussed, the vegetable export sector has undergone considerable change in recent years with almost all produce now sold under direct contracts with UK and other supermarket chains. A limited amount of produce is also sold under contract to a South African supermarket and small quantities have been shipped to the USA and Australia where short seasonal windows for specific products are sometimes available.

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<sup>86</sup> Andersen Worldwide, 2000a and 2000b.

124. York Farm and Agriflora now account for the bulk of produce shipped abroad and each of these has had to invest heavily in packing facilities, heat extraction units, cold storage equipment, refrigerated trucks as well as other in-field equipment for their own production. Whereas York Farm prefers to rely mainly on its own output and produce from a few other well-established commercial outgrowers, Agriflora has sought to develop a wider production base with more expansive outgrower participation including a new program specifically designed to support smallholder farmers on a cooperative basis.<sup>87</sup> This program was developed in cooperation with the USAID-funded ZATAC project and is to be further expanded to include participants in Agriflora's new coffee program described above with farmers growing vegetables as an intercrop until the coffee is mature. So far, smallholder farmers under the Agriflora program are mainly producing baby corn since they are already well-experienced maize farmers. Although this particular vegetable crop provides lower returns than other export products, it is much simpler to manage and less prone to pest attack.

125. **Domestic vegetables.** Vegetables for domestic consumption are grown both by commercial and smallholder farmers with the bulk of smallholder produce traded informally in village and district markets or along the roadside. Most urban areas also have larger more established public markets where smallholder and commercial farmers also trade, but these are mostly very poor quality with little to no cold storage space, poor hygiene standards and insufficient mechanisms to move produce efficiently and guarantee the highest possible price for farmers and best deal for consumers alike. Although commercial farmers are mostly able to drive a truck with produce into these markets, small-scale farmers normally leave their produce with an agent who agrees to sell it on their behalf for a commission. In practice, it then takes several days for the smallholder to be paid and they are rarely given a true indication of the price actually received by the agent. As this process goes on, high-value products like tomatoes fall in price each day and the farmer is forced to wait in town at considerable expense so there is often little or no profit left at the end. Most independent grocery stores, small market traders and street vendors source their produce through agents in the large public markets, but rarely get the best possible produce due to the lack of transparency in the pricing system.

126. Some independent wholesale agents have attempted in the past to provide an alternative to trading through the public markets. Currently, the most important such operation is FreshMark, which is owned by the same parent company as Shoprite and functions mainly to supply produce to the 18 Shoprite stores now in operation throughout the country. FreshMark puts a high premium on quality and is able to source about 40% of the produce it trades direct from local farmers and other domestic sources. The remainder of produce is mostly imported from South Africa and Zimbabwe, due partially to price advantages compared with local commodities. About 75% of FreshMark's business is to supply Shoprite stores and the balance of produce is sold to other local grocery stores and informal traders. Importantly, FreshMark also exports some Zambian produce to Shoprite stores in Uganda, Malawi and even South Africa. In this case, managers report that it is not a problem to find good quality local produce, but note that most Zambian growers expect to receive import parity prices rather than export parity which makes it difficult to compete.

127. **NZTT Training Center.** Under a major new development to improve local management capacity and sector performance, ZEGA members and other horticultural producers have recently established the new National ZEGA Training Trust (NZTT) at the Zambia Natural Resources Development College (NRDC) to train middle-level greenhouse and pack-shed managers for both roses and export vegetables. This is a major achievement in the horticulture sector and should go a long way to improving the efficiency and long-term success of future investments. NORAD, the EU and Dutch Government provided a combined

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<sup>87</sup> This is similar to the Agriflora investments in smallholder coffee and paprika described above.

total of USD 1.6 million in financial support and the GRZ donated land and buildings for the project.

## **B. Market Opportunities**

128. Because European markets are the most lucrative, Zambia's horticultural exports must be shipped as airfreight. Other markets in the USA and Australia also offer some scope for development, but these opportunities are constrained by the higher cost of freight to these destinations and by competition from other sub-tropical producers closer by. Regional market opportunities in southern Africa, on the other hand, are limited by consumer purchasing power and do not offer much scope for expansion given that farmers in these neighboring countries can mostly grow the same products at the same time of year as Zambia. Furthermore, agricultural producers in neighboring countries often enjoy lower production costs than Zambian farmers, especially with regard to electricity for pumping irrigation water and for fuel to collect fresh produce from dispersed outgrowers, that further erodes Zambia's competitive position.

129. **Floriculture.** Worldwide, roses and other floricultural products are mostly sold through one of two main channels. First is the traditional route of selling through the Dutch auction and virtually all Zambian flowers are currently traded this way. The main advantage of this system is that individual growers are able to send their flowers for sale with relatively few barriers to entry. On the other hand, auction fees and commissions using this system are very high and represent the second largest cost component after airfreight equal to around 16 percent of gross sales.

130. The second possible market outlet for floricultural products is to establish a direct contract with international buyers including supermarket chains and other distribution agents. The main advantage of this system is that it provides a direct savings on auction fees, with normally only about 10% to 15% of the total crop having to be sold through the auction to establish their base price. Recent analysis of this type of marketing by growers in Zimbabwe, for example, shows that farmer profits can improve by 40% to 60% when sold directly compared with sales through the auction.<sup>88</sup> In this case, two export consortia have been formed in Zimbabwe, each consisting of five to six members with around 30 hectares of combined production needed to supply consistently the variety of flowers contract buyers demand. Most of these contract sales are still to agents in Holland, but about 3 500 bunches per week (with a value of ZAR 80 000 or USD 9 412) are sold to one large supermarket chain in South Africa. To the extent the Zambian rose industry is able to achieve sustained growth over the next few years, this type of model from Zimbabwe offers excellent potential for improved farmer profits and protection from declining world prices.

131. **Export vegetables.** The main market opportunities for export vegetables are in Europe and correspond with Zambia's current trade pattern. Although other possible outlets exist, these alternatives are constrained either by the limited purchasing power of the average consumer (as in South Africa) or by strict phytosanitary, disease and pest risk controls (as in the USA and Australia). Some small quantities of mangetout and sugar snaps have been sold to the USA and Australia, but this is usually only during a very short window until local or other regional produce becomes available.<sup>89</sup> Some reports also suggest there may be good opportunities in the Middle East where increasingly affluent consumers are now demanding a greater range of fresh vegetables than can be produced locally. In this case, however,

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<sup>88</sup> Keyser, 2001.

<sup>89</sup> Sugar snaps were temporarily imported to the USA on the basis of a pest risk analysis (PRA) carried out for mangetout (snow peas), but this window has since been closed pending a new PRA specifically for sugar snaps.

considerable time would likely be required to develop the type of personal business relations that are often needed for trade in that region.

132. As noted, virtually all of the fresh vegetables Zambia ships abroad are sold as pre-packed shelf-ready produce whereas considerable volumes used to be traded in the UK and other European wholesale markets. Wholesale trade, however, still accounts for a large share of total vegetable trade in Europe with combined turnover of several million dollars annually including produce imported from outside the European Union. Rather than neglect these markets, therefore, a renewed emphasis on wholesale trade could offer a good opportunity for expansion of the Zambian industry, especially to the extent that these markets are less demanding with regard to uniform quality standards and timeliness of delivery.

133. **Domestic vegetables.** To achieve broad expansion of the export industry with increased smallholder participation, it is likely to first be necessary to improve domestic quality standards and farmer awareness on the importance of attention to detail. As described, current domestic market outlets discourage production along these lines with inadequate pricing mechanisms needed to attract new farmers to vegetable crops and build the strong production base needed for eventual overseas expansion.

134. **Impact of recent trade protocols.** Neither the SADC Trade Protocol, COMESA Free Trade Agreement appear to offer any material change in the terms of trade for horticulture that could give Zambia a competitive edge over other world producers. However, fresh cut roses can now enter the US market duty-free under AGOA (versus a 6.8 percent MFN rate for countries not enjoying preferential access to the US market). As noted, demand within SADC is constrained by the limited purchasing power and taste preferences of most consumers. Although some seasonal advantages for early produce may be available, these are unpredictable and not of a scale to justify significant new investment. Lower tariffs into SADC and other regional markets could help Zambian producers, but other countries also enjoy the same benefit and this does not hold much promise as a leverage point for broad sector development. Likewise, non-tariff barriers, including phytosanitary and pest risk controls, are the most important obstacles to trade with the United States, but these are not addressed under AGOA and any possible advantage on price is likely to be short lived because of competition from Central American producers and subsidized US farmers.

### **C. Bottlenecks and Leverage Points**

135. For both the floriculture and fresh vegetable sub-sectors, the most pressing challenge is to expand the local production base. Other important barriers to increased trade include the high cost of airfreight, strict phytosanitary and pest risk requirements, challenge of establishing new direct contracts with vegetable and floriculture buyers and also identification of possible wholesale outlets. Part of the solution to these problems, however, lies in increasing total production since this would allow for improved efficiencies and economies of scale needed to negotiate new direct contracts and lower airfreight prices for fresh vegetable and floricultural products.

136. **Floriculture.** This challenge of expanding production in the floriculture sector is especially pronounced given the immediate need to rehabilitate the 18 now defunct rose farms. Total start-up costs for a two hectare rose project are very high and have been estimated at nearly ZMK 1.85 billion (USD 500 000) including plastic houses, drip line fertigation systems, rose bushes, royalties, grading rooms, cold storage space and insulated trucks. Rose bushes alone can cost more than ZMK 336 million (USD 91 000) per hectare including royalties and are normally replaced after five years with new varieties. With the distressed rose farms, most of this infrastructure still exists. Most plastic houses would probably need to be re-sheeted, rose bushes would have to be replaced and repairs would also

be required for some irrigation lines. Nevertheless, because most basic infrastructure is already in place, the main challenge is to devise an effective financial rescue plan and, as described, ZEGA has already prepared a set of models ready for application.

137. Beyond the rehabilitation of existing infrastructure, there is still a need to expand the industry even further with new producers, especially if Zambia is to take advantage of future opportunities for more lucrative direct export contracts compared with current sales through the auction. In this respect, very high establishment costs mean that a main constraint to growth is limited access to investment finance. Although there are a number of donor supported investment facilities currently being managed by Zambia's commercial banks, the terms on offer seem to have been insufficient to attract new investors or to allow as rapid expansion of existing successful operations as might otherwise be possible. Whether or not and how new finance facilities could help (like the former rose line of credit), is an area that should be considered in more detail through discussions with ZEGA, the donor community and other sector stakeholders. Indeed, now may be an excellent time to investigate new finance mechanisms given that the new NZTT Training Centre addresses the problem of limited management capacity that is one major factor that contributed to the failure of past rose projects.

138. **Export vegetables.** Increased production of export vegetables can be achieved either by increased production by the export agent, increased production by commercial outgrowers or increased production by smallholder farmers. At least until recently, most emphasis has been given to the first two approaches with only a limited focus on small-scale farmers.

139. With respect to export agents and commercial outgrowers, there are at least three main constraints to increased production. First is that these crops are all very labor intensive. From the social point of view the fact that export vegetables create more jobs per hectare than most other areas of agriculture is a distinct advantage, but from the farmer's point of view this represents a considerable risk and management burden. Second, although vegetable producers all stagger their plantings on a weekly basis to produce a steady cash flow, the costs of financing this type of operation are still very high with more money going out for several weeks before the crop returns a positive income. The third constraint relates to the pricing system in that farmers are only paid for produce actually shipped abroad and accepted by the supermarket buyer. Unsurprisingly, this system has led to suspicions that growers are not always paid for all the produce actually exported and this has encouraged some commercial farmers to prefer other crops with more certain terms of payment.

140. In the smallholder sector, the limited management skill of most growers together with the high cost of developing private extension services, irrigation capacity and rural collection depots are among the most important constraints to increased production. As described, a program was recently designed in cooperation with ZATAC to address these problems with the outgrower company itself doing crop spraying with the cost deducted from each farmer's final payment. Nevertheless, the risk that farmers may still apply some other chemical could easily result in the presence of a trace element and the immediate suspension of all export contracts. For this reason, only one direct exporter has so far been willing to work with smallholders and this firm is so far taking a cautious approach as it identifies further strategies to minimize its risks over the long run.

141. Finally, for all vegetable produce, other important bottlenecks relate to the problem of strict phytosanitary and pest risk controls in the major developed country markets. Although it has been possible to overcome these barriers for entry to Europe and South Africa, restrictions in the USA and Australia have severely constrained Zambia's ability to take advantage of possible market opportunities in these countries. The US Government requirement for a full Pest Risk Analysis to be carried out for all new produce to enter the United States in particular has been an important barrier with one exporter now waiting more



than four years for approval of just one product.<sup>90</sup> Clearly, if Zambian producers are to benefit from possible trade incentives available under AGOA, the problem with non-tariff barriers such as this must also be addressed.

142. **Domestic vegetables.** As described, one of the most important constraints in the domestic vegetable sector is the lack of adequate price discovery mechanisms through well-regulated wholesale markets. With improved market facilities, including adequate cold storage space, the time it takes to sell a farmer's produce could be significantly reduced with the benefit of increased prices and lower transaction costs. In turn, these conditions could attract new farmers to vegetable production thereby expanding the industry and opportunities for improved rural incomes. Furthermore, to the extent that Zambian farmers are able to realize the full benefit of improved quality standards as a result of more transparent price discovery, the development of new and enhanced market facilities could build certain skills farmers need for export production over the long run.

143. Other important constraints in the domestic vegetable sector include problems with the high cost and limited availability of transportation, poor rural infrastructure and inadequate access to essential inputs including appropriate agrochemicals. Limited awareness on the part of domestic consumers on the importance of quality, freshness and hygiene also discourages producers and market traders alike from observing better practices that could help attract a better price and provide a more solid basis for future growth.

#### **D. Strategic Interventions**

144. **Floriculture.** The continued expansion of the rose industry should be accorded high national priority with aggressive efforts made to increase the utilization of existing infrastructure, including the rehabilitation of several now defunct rose farms, and by supporting new investments by experienced rose farmers in Zambia and from other countries. High start-up and rehabilitation costs are among the most pressing concerns in this respect and a detailed understanding for the reasons behind the poor utilization of existing EU, EIB and World Bank loan facilities could go a long way to addressing the main barriers to improved sector performance. Export roses and other floricultural products offer some of the best opportunities available to Zambia for rapid and meaningful economic growth and, depending on the outcome of these investigations, a good case could perhaps even be made for the GRZ and donor community to support a new dedicated investment fund specifically designed to promote the continued and accelerated growth of the rose sector.

145. Opportunities for enhanced sector performance may also exist through the negotiation of direct contracts with European and other world buyers. As described, farmers in Zimbabwe have used this marketing approach to good effect as a route to significantly enhanced farm profitability. Given the high cost of investment finance in Zambia, therefore, this type of marketing could offer especially good leverage for improved sector growth by making it easier to service long-term debt. Zambia could certainly benefit from an improved and broader understanding of these market opportunities including specific information on the types of flowers that are demanded as well as the capacity and willingness of established growers to pool their resources in an export consortium for direct marketing.

146. **Export vegetables.** Each main export agent currently selling vegetables abroad has their own strategy for growth and expansion. These include two well established and very successful operations and it can only be assumed both firms will continue to expand their output in line with viable market opportunities to the greatest extent possible. The decision on how best to achieve this growth (increased direct production, involvement of additional

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<sup>90</sup> Giovannucci, et. al. 2001.

commercial outgrowers or development of new smallholder programs) depends on the circumstances and preferences of each export agent and is a strategic decision only they can make. Bearing this limitation in mind, there is still a good opportunity for Zambia to investigate new opportunities that would facilitate small-scale production. ZATAC has already been working in this regard and the challenge now will be to monitor the experience and draw lessons that can help facilitate further expansion

147. A further strategic intervention for enhanced sector performance would be to improve information flow on possible opportunities for trade with other developed country markets. South Africa is only likely to offer limited potential, but there may still be good scope for more aggressive entry to the US and Australian markets to the extent exporters are able to effectively navigate the maze of phytosanitary, pest risk and other non-tariff barriers these countries have in place. In this respect, it is important to note that Zambia currently does not have a dedicated horticultural promotion council (HPC), like that which exists in Zimbabwe to help producers gain access to new markets.

79. The development of freezing and dehydration capacity for vegetables and other suitable products could also offers scope for new investment. Although financial viability of these operations is by no means assured, and would depend on sufficient quantities of raw materials being available at a competitive price for processing, investment in these areas could help save on the cost of airfreight for vegetable exports and also provide an outlet for produce that is rejected because of quality (especially with respect to dehydration). The Commonwealth Secretariat has already explored some of these opportunities in a recent detailed report with specific investment strategies for individual agro-processing sectors.<sup>91</sup> Likewise, a recent report on the impact of improved grades and standards for agricultural produce highlights further important constraints entrepreneurs would need to consider if planning an investment in this area.<sup>92</sup>

148. **Market promotion.** The formation of a HPC for export growers could be of significant to both the rose and vegetable sub-sectors. Although the ZEGA has tried to play the role of a promotion agency in the past, its core functions have evolved to relate more to the negotiation of air cargo space, bulk procurement of inputs and management of the cold storage depot at the Lusaka International Airport. Establishment of a dedicated HPC (perhaps as a new arm of the ZEGA), on the other hand, would help focus attention on the equally important aspect of promoting the industry's reputation overseas, both among potential buyers of Zambian produce and possible investors in the Zambian industry. An HPC could also play an important role in fostering dialogue on new financing mechanisms and other constraints faced by the industry. Although the ZEGA has tried to address some of these issues in the past, other business aspects of its operations have tended to detract from these responsibilities and there could now be room to improve the representation of the industry.

149. **Wholesale markets.** For domestic vegetables, it has already been suggested that a very effective intervention would be to support the development of new wholesale facilities in the major urban areas that would improve the efficiency and transparency of business transactions for commercial and smallholder farmers. Discussions suggest there may be very strong support for this type of investment, especially because of the potential benefit for small-scale farmers. Although there are many issues that would have to be considered in deciding how best to proceed, it is clear that at a minimum the new facility would need good cold storage capacity, large clear spaces to allow the free movement of trucks, a secure perimeter fence and good sanitation with sufficient water for washing display and handling areas on a regular basis. Locating any such facility in Lusaka somewhere towards the airport

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<sup>91</sup> Commonwealth Secretariat, 2001.

<sup>92</sup> Giovannucci, 2001.

would have significant advantage in terms of improved security compared with the town center and as a possible springboard for export trade including links with wholesale markets worldwide.

150. **Domestic market campaign.** To support the development of domestic markets a further possible intervention would be to launch a public awareness campaign on the benefits of fresh quality produce compared with vegetables left on the ground or in the sun as currently happens in most public markets. The nutritional benefits of fresh fruits and vegetables could also be promoted to build consumer awareness from a health perspective and to create further demand for new and traditional products.

151. A similar campaign with a very clear message has been running for several years in South Africa called “Five-a-Day for Better Health and Nutrition.” This has involved the use of TV and radio advertising as well as the distribution of posters to clinics and other community centers used especially by women. Importantly, South African vegetable traders say this has been one of the most important factors (apart from well equipped wholesale markets) behind the growth of their industry in recent years. Especially given the recent economic upturn in the Zambian Copperbelt, where miners are now being paid their salaries in full and on time, this could be an excellent time to launch a similar program in Zambia to try and capture some of this additional income on behalf of smallholder farmers and other vegetable growers.

### **E. The Way Forward**

152. Currently, the ZEGA is the main body responsible for promoting development in the horticulture export sector. Although the ZEGA can look back with pride on many important achievements, it must continue to work even more aggressively than before to promote further development and expansion of the horticulture sector. Several recommendations have been put forward that could help Zambia realize this potential and the ZEGA will need considerable support in deciding on the best way forward. As with the other priority sectors discussed here, ZAMTIE is in an especially good position to work with the ZEGA in this respect and by drawing on regional consultants and helping to build developing partnerships with other donors and sector participants with common interest.

153. Within this context, the following specific steps offer a good starting point to further explore the opportunities identified here.

- Undertake a detailed study on the major constraints with existing donor supported credit programs and potential demand for new dedicated credit facilities for various export sectors. The study should identify specific requirements for finance related to roses, export vegetables and other priority sectors.
- Undertake detailed market research on the opportunities to sell roses by direct contract including information on the volumes and variety of flowers that would be required and willingness of established Zambian growers to form a export consortia as has been done in Zimbabwe.
- Undertake a quick market survey on the potential to market Zambian vegetables through overseas wholesale markets, including the types of produce demanded, barriers to entry and flexibility with regard to seasonality and packaging.
- Undertake a detailed study on the possibility of developing new wholesale markets in Zambia. The study should consider a range of possible management plans, infrastructure requirements and degree of

interest among local producers and retail traders. The study should also identify possible sources of finance (including opportunities for donor support) and, to the extent possible, prepare detailed cost schedules for full development.

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## APPENDIX 1

### LIST OF CONTACTS AND BUYERS IN SELECTED FIELDS

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**Please note** the following list is included for the convenience of readers with a specific interest in a particular commodity sector and other areas of potential investment. The list was prepared mainly on the basis of people interviewed during the research of this study and no particular effort has been made to develop a comprehensive list of business contacts. The



names given here provide a starting point for further investigation, but no responsibility can be taken for the use of these details to make actual investment decisions.

## I. COMMODITY SECTORS

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Elizabeth Phiri-Mudenda, Deputy Executive Director  
Tim Durgan, Director for Marketing  
Ivan Stubbs, Director of Program Management  
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### **Projects outside Zambia**

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## **C. Trade and Business Associations**

### **Associations in Zambia**

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Organic Producers and Processors Association of Zambia (OPPAZ), PO Box 34465, Lusaka

Susie Burgess, Coordinator and Technical Advisor

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Zambia Association of Chambers of Commerce and Industry (ZACCI), Lusaka Showgrounds, PO Box 30844, Lusaka

Peter Armond, Chief Executive

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Miriam Nkunika, Director Agribusiness

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Zambia Chamber of Small and Medium Business Associations, Stanchart Stand, Lusaka Showgrounds, PO Box 32932, Lusaka

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Zambia National Farmers Union, ZNFU Stand, Lusaka Showgrounds, PO Box 30395, Lusaka  
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Songowayo Zyambo, Executive Director  
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#### **Associations outside Zambia**

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#### **D. Commercial Banks**

Barclays Bank of Zambia Ltd., Kafue House, Cairo Road, Lusaka  
Biggie Miyoba, Agricultural Support Manager  
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Stanbic Financial Services Zambia, Woodgate House, Nairobi Place, Cairo Road, Lusaka  
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#### **E. Diplomatic Missions and Official Agencies**

Common Market for Eastern and Southern Africa, COMESA Centre, Ben Bella Road, Lusaka  
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Mehlokazulu Kimberly Ndiweni, Senior Private Sector Development Officer  
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Ibrahim A. Zeidy, Senior Monetary Economist  
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Food and Agriculture Organization (FAO), PO Box 30563, Lusaka  
Richard Fuller, Resident Representative  
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Email: [FAO-zmb@field.fao.org](mailto:FAO-zmb@field.fao.org)

Zambia Trade and Investment Enhancement  
TRADE AND INVESTMENT OPPORTUNITIES IN AGRICULTURE

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South African Department of Trade and Industry, Pretoria, South Africa,  
Mr D. Jordaan, Advisor to the Board on Tariffs and Trade  
Tel: (27-12) 428-7709.

Office of the United States Trade Representative, Southern Africa Region, United States  
Embassy, Pretoria, South Africa  
Mr. B. Godec and/or Mr. A Tousignon (AGOA information)  
Tel: (27-12) 342-1048,  
Web: [www.agoa.gov](http://www.agoa.gov)

United States Agency for International Development (USAID), Zambia Resident Mission,  
351 Independence Avenue, PO Box 32481, Lusaka  
Susan Gale, Private Sector Manager  
Cris Muyunda, Agribusiness Specialist  
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The World Bank, PO Box 35410, Lusaka  
Alex Mwanakasale, Agricultural Operations Officer  
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## APPENDIX 2

### LUSAKA WORKSHOP AGENDA AND LIST OF PARTICIPANTS

#### I. WORKSHOP AGENDA

##### Project and Investment Strategy Workshop

9:30 – 1:00

Tuesday 25 September 2001

ZATAC Conference Room

- 9:30 – 9:45 Welcoming Remarks (Dr. Ron Black, ZAMTIE Chief of Party).
- 9:45 – 10:20 Introduction and Overview (Mr. John Keyser, ZAMTIE Team Leader)
- Analytical objectives
  - Identification of priority commodities
  - Recent export performance and trade protocols
  - Role of ZAMTIE
  - Discussion
- 10:20 – 10:50 Cotton Sector Analysis (Mr. Terry Heslop, ZAMTIE Market Strategist)
- Recent performance, new opportunities and constraints
  - Possible strategic interventions
  - Role of ZAMTIE
  - Discussion
- 10:50 – 11:10 COFFEE BREAK**
- 11:10 – 11:30 Coffee Sector (Terry)
- 11:30 – 11:50 Paprika Sector (Terry)
- 11:50 – 12:10 Export Horticulture (Terry)
- 12:10 – 12:30 Domestic Vegetable Markets (John)
- 12:30 – 12:45 The Role of ZAMTIE (John)
- Summary of strategic interventions

- Areas of future activity

12:45 – 1:00 Concluding Remarks and Discussion

## II. LIST OF PARTICIPANTS

	NAME	ORGANIZATION	POSITION
1.	TEMBO BATSEBA	BIMZI	ASST. AGRIC OFFICER
2.	NELSON CHISONGA	ZACCI	TRADE & ECON.
3.	CAIAPHAS HABASONDA	STANBIC BANK	MGR-FIN. SERVICES
4.	WALTER BLECHINGBERG	SHEMP	AGRIBUSINESS EXEC
5.	JAN-JOOST NIJHOFF	FSRP	COORDINATOR
6.	LUKE C MBEWE	ZEGA	CHIEF EXECUTIVE
7.	SULA N MAHONEY	ZCGA	ASSISTANT GENERAL MANAGER
8.	ALEX VALETA	IMCS	SNR CONSULTANT
9.	MOSES SIMEMBA	GTN/IESC - ZAMBIA	COUNTRY REPRESENTATIVE
10.	ALFRED MWILA	ZNFU	ECONOMIST
11.	KENNY MUTAMBO	ZAM	SEC
12.	KANDOLO PATRICE	COMESA	AGRIC OFFICER
13.	GLYNE MICHELO	EBZ	CORP. PLANNER
14.	JOHN KASANGA	IMCS	DIRECTOR
15.	VERNON CHINENE	SHEMP	COORDINATOR
16.	JOYCE CHAPUMA	EBZ	MANAGER
17.	SUNDAY CHIKOTI	MCTI	TIPO
18.	CRIS MUYUNDA	USAID	PROJECT MANAGER
19.	RON BLACK	ZAMTIE	CHIEF OF PARTY
20.	MIKE PURSLOW	ZAM	SEC
21.	RABSON MATIPA	COMESA	PROG. ANALYST
22.	CALVIN KASANDA	MCTI	SENIOR ECONOMIST
23.	CONRAD SIMUCHILE	MCTI	PUBLIC RELATIONS OFFICER
24.	EUGENE NGOSA	EBZ	MKT. RESEARCH
25.	TIM DURGAN	ZATAC	MKT. DIRECTOR
26.	JIM LAFLEUR	ZATAC	EXEC. DIRECTOR
27.	IVAN STUBBS	ZATAC	EXEC. DIRECTOR
28.	PRISCA CHIKWASHI	ZATAC	ACC. MANAGER
29.	GUY SCOTT	MANO CONSULTANCY	MANAGING DIRECTOR
30.	JOHN KEYSER	ZAMTIE	CONSULTANT
31.	TERRY HESLOP	ZAMTIE	CONSULTANT